

1000 Young

WELLESLEY COLLEGE BULLETIN

**CALENDAR
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NOVEMBER, 1923**

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WELLESLEY COLLEGE CALENDAR

1923-1924

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CORRESPONDENCE

All inquiries regarding admission should be addressed to the Secretary to the Board of Admission.

As Director of the Bureau of Occupations, ASSOCIATE PROFESSOR WOOD is prepared to furnish full and confidential information in regard to the qualifications, character, and experience of former students of the College as candidates for teaching and other vocations. Former students of the College who wish situations have the aid of the Bureau of Occupations.

Inquiries for general information should be addressed to Miss Mary Caswell, Secretary to the President.

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CALENDAR

Academic Year 1923-1924

Examinations September 17-20, 1923.
Academic year begins Monday, September 24.
HOLIDAY, THANKSGIVING DAY, November 29.
 Recess from 12.30 P.M. Wednesday, December 19, 1923, until 12.30
 P.M. Wednesday, January 9, 1924.
Registration closes for all students at 12.30 P.M. Wednesday, January 9.
Second Semester begins Monday, February 11.
 Recess from 12.30 P.M. Friday, March 28, until 12.30 P.M. Tuesday,
 April 8.
Registration closes for all students at 12.30 P.M. . Tuesday, April 8.
COMMENCEMENT Tuesday, June 17.

Academic Year 1924-1925

Examinations September 15-18, 1924.
Registration closes for new students at 10 P.M. Monday, September 15.
Registration closes for all other students at 10 P.M. Friday, September 19.
Halls of Residence open for new students at 9 A.M. Monday, September 15.
Halls of Residence open for all other students at 2 P.M. Thursday, Sep-
 tember 18.
Academic year begins Monday, September 22.
HOLIDAY, THANKSGIVING DAY, November 27.
 Recess from 12.30 P.M. Thursday, December 18, 1924, until 12.30
 P.M. Wednesday, January 7, 1925.
Registration closes for all students at 12.30 P.M. Wednesday, January 7.
Second Semester begins Monday, February 9.
 Recess from 12.30 P.M. Friday, March 27, until 12.30 P.M. Tuesday,
 April 7.
Registration closes for all students at 12.30 P.M. . Tuesday, April 7.
COMMENCEMENT Tuesday, June 16.

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¹The officers of instruction are arranged in three groups; the first group includes professors, associate professors and assistant professors, the second instructors, and the third other officers.

²Absent on Sabbatical leave.

³Absent on leave.

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⁹Absent on Sabbatical leave for the second semester.

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²Absent on Sabbatical leave.

³Absent on leave.

⁵Absent on leave for the second semester.

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ALBERT PITTS MORSE, *Curator of Zoology Museum.*

CELIA HOWARD HERSEY, B.A., *Assistant Curator of the Farnsworth Art Museum.*

KATHLEEN MILLICENT LEAVITT, *Custodian to the Department of Zoology.*

EDWARD ERASTUS BANCROFT, M.A., M.D., *Consulting Physician.*

ELIZA JACOBUS NEWKIRK², M.A., *Lecturer in History of Architecture.*

HARRIET BOYD HAWES, M.A., L.H.D., *Lecturer in Art.*

HERVEY WOODBURN SHIMER, PH.D., Sc.D., *Lecturer in Geology.*

HERBERT ERNEST CUSHMAN, PH.D., LL.D., *Lecturer in Philosophy.*

MARGARET GILMAN, *Lecturer in Art.*

MATILDA REMY, *Lecturer on the History and Practice of the Kindergarten.*

MARGARET MALL VIGNOLES⁷, B.A., *Lecturer in the History of Architecture.*

EDMUND MORRIS FERGUSSON⁷, M.A., D.D., *Lecturer on the History and Problems of Religious Education.*

DANIEL STARCH,⁷ PH.D., *Lecturer in Psychology.*

ETHEL DANE ROBERTS², B.A., B.L.S., *Librarian.*

ANTOINETTE BRIGHAM PUTNAM METCALF, M.A., *Associate and Reference Librarian.*

LILLA WEED, M.A., *Associate Librarian.*

HELEN MOORE LAWS, B.A., *Cataloguer.*

JULIA CLEMMMA KNOWLTON, PH.B., B.L.S., *Librarian of Mary Hemenway Hall.*

RUTH MARGERY ADDOMS, M.A., *Alice Freeman Palmer Fellow.*

Special Lecturers in the Department of Hygiene and Physical Education

WALTER ADAMS BRADFORD, D.M.D., *Lecturer on Oral Hygiene.*

JOSEPH WILLIAM COURTNEY, M.D., *Lecturer on the Hygiene of the Nervous System.*

FOSTER STANDISH KELLOGG, M.D., *Lecturer on Pelvic Hygiene.*

WALTER B. LANCASTER, M.D., *Lecturer on Visual Hygiene.*

ANDREW ROY MACAUSLAND, M.D., *Lecturer on Orthopedics.*

WILLIAM RUSSELL MACAUSLAND, M.D., *Lecturer on Orthopedics.*

WILLIAM EMERSON PREBLE, B.A., M.D., *Lecturer on Internal Medicine.*

HAROLD GRANT TOBEY, M.D., *Lecturer in Oto-Laryngology.*

HARVEY PARKER TOWLE, M.D., *Lecturer on the Hygiene of the Skin.*

²Absent on Sabbatical leave.

³Absent on leave.

⁷Appointed for the second semester only.

OFFICERS OF ADMINISTRATION

ELLEN FITZ PENDLETON, M.A., Litt.D., LL.D., *President*.
ALICE VINTON WAITE, M.A., DEAN. *Professor of English Language and Literature*.
EDITH SOUTHER TUFTS, M.A., *Dean of Residence*.
KATHARINE PIATT RAYMOND, B.S., M.D., *Resident Physician*.
MARY CASWELL, *Secretary to the President*.
MARY FRAZER SMITH, B.A., *College Recorder*.
MARIE LOUISE STOCKWELL, B.A., *Assistant Secretary to the President*.
FRANCES LOUISE KNAPP, B.A., *Secretary to the Board of Admission*.
EVELYN AMELIA MUNROE, B.A., *Cashier*.
CHARLOTTE SCOTT WHITON, *Purveyor*.
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ALICE LILLIAN MCGREGOR, *Head of Tower Court*.
HARRIET HATTON MAYNARD, *Head of Townsend House*.
MARTHA FAY CLARKE, *Head of Leighton House*.
MARY HUBBARD MORSE RICHARDSON, *Head of the Homestead*.
JESSIE ANN ENGLES, *Head of Crofton House and Ridgeway Refectory*.
JOSEFA VICTORIA RANTZIA STALLKNECHT, *Head of Lovewell House*.
VIOLA FLORENCE SNYDER, *Head of Washington House*.
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ELVIRA GENEVIEVE BRANDAU, *Head of Wood House*.
FRANCES RAYNOR MEAKER, *Head of Beebe Hall*.
HELEN SEYMOUR CLIFTON, *Head of Noanett House*.
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BELLE MORGAN WARDWELL, B.S., *Head of Pomeroy Hall*.
CARRIE IRISH, *Head of Stone Hall*.
ETHEL ISABELLA FOSTER, *Head of Freeman House*.
MARY GILMAN AHLERS, B.A., *Head of Wilder Hall*.
STELLA BURSE BALDERSTON, *Head of Fiske House*.
MARY CROSS EWING, B.A., *Head of Norumbega House*.
LUCY PENDLETON BELL, *Head of Webb House*.
LOUISE ROE, *Head of Horton and Hallowell Houses*.
CAROLYN MAY LOOMIS, *Head of Clinton House*.
FLORENCE IRENE TUCKER, B.A., *Assistant to the Purveyor*.
JESSIE RICHARDS ADAMS, *Secretary to the Dean*.

³Absent on leave.

LEILA BURT NYE, *Manager of Post Office.*

AMY HARDING NYE, *Manager of the Information Bureau.*

WENDELL HOWARD KAYSER, B.S., *Business Manager.*

HENRY HERBERT AUSTIN³, B.S., *Superintendent of the College Plant.*

FREDERICK DUTTON WOODS, B.S., *Superintendent of Grounds.*

*Absent on leave.

STANDING COMMITTEES

BOARD OF ADMISSION.—Misses Bliss, Clark, Grace Davis, Knapp (*Chairman*), Perkins; the Dean *ex officio*.

COMMITTEE ON GRADUATE INSTRUCTION.—Misses Edwards, Ferguson, Gamble, McDowell (*Chairman*), Miller, Mr. Curtis; the Dean *ex officio*.

LIBRARY COMMITTEE.—Miss Roberts (*Chairman ex officio*), Misses Bragg, Brown, Jackson, Merrill, Wipplinger, the President and Librarians *ex officio*.

COMMITTEE ON INSTRUCTION.—Dean Waite (*Chairman ex officio*), Misses Jackson, Williams, Wood; Mrs. Hodder; Messrs. Duncan, Pulling.

COMMITTEE ON HONORS IN SUBJECTS.—Dean Waite (*Chairman ex officio*), Misses Batchelder, Calkins, Hawes, Moody, Orvis; Mr. Pulling.

COMMITTEE ON ROUTINE BUSINESS.—Misses Bliss, Conant, Copeland, Donnan, Griggs, Moffett, Sawyer, Walton; Mr. Ruckmick, and *ex officio* President Pendleton, Dean Waite, Dean Tufts.

FACULTY MEMBERS IN SENATE OF COLLEGE GOVERNMENT ASSOCIATION.—President Pendleton, *ex officio*; Misses Helen Davis, Griggs, Kendrick, Lyman.

WELLESLEY COLLEGE

Wellesley, Massachusetts

FOUNDATION AND PURPOSE

WELLESLEY COLLEGE was established for the purpose of furnishing to young women who desire to obtain a liberal education such advantages and facilities as are enjoyed in institutions of the highest grade. The first building of the College, erected and equipped under the supervision and through the personal means of the founder, was opened to students in 1875, with the announced purpose "of giving to young women opportunities for education equivalent to those usually provided in colleges for young men." Throughout his work the founder aimed to put into visible form his ideal of the higher education for women, "the supreme development and unfolding of every power and faculty."

By the charter, granted by the Commonwealth of Massachusetts, "the corporation of Wellesley College is authorized to grant such honorary testimonials, and confer such honors, degrees, and diplomas, as are granted or conferred by any University, College, or Seminary of learning in this Commonwealth; and the diplomas so granted shall entitle the possessors to the immunities and privileges allowed by usage or statute to the possessors of like diplomas from any University, College, or Seminary of learning in this Commonwealth."

In accordance with the spirit of the founder, the College is undenominational, but distinctively Christian in its influence, discipline, and instruction.

The members of the College meet daily for morning prayers in the beautiful chapel presented in 1899 by Miss Elizabeth G. Houghton and Mr. Clement S. Houghton as a memorial to their father. Services on Sunday are conducted in this chapel by preachers of different denominations. At all these services and at vespers on Sunday, the singing is led by a trained choir of students under the direction of the professor of music.

The Wellesley College Christian Association, organized to foster religious life and interest in social reforms and in home and foreign missions holds meetings for prayer and religious instruction.

The department of Biblical History affords the systematic study of the Bible required of all students.

ADMISSION

In order to qualify for admission to Wellesley College an applicant must be at least sixteen years of age and must present satisfactory evidence of her ability to make good use of the opportunities offered by the College. This evidence must include satisfactory testimonials concerning character, health, and scholarship.

Applications for admission should be made upon forms which will be furnished on request. An application fee of \$10 is required of all applicants and no registration is recorded until this fee is received. (See page 129.) The date of application is used as a basis in assigning rooms in college houses. Since the number of students to be admitted is limited by the capacity of class rooms, it is necessary to close the application list several years in advance. After the regular list for a given year is closed, promising students may be registered on a competitive list. The date of application will not be considered in admitting from this list, but the Board of Admission will select the candidates who, from the evidence submitted, seem to be the best qualified to profit by a course of study at Wellesley College.

Beginning with September 1929, candidates will be accepted in the order of the excellence of the credentials submitted. The advantage of an early application will still hold, since rooms will be assigned to accepted candidates according to the date of application for admission.

ADMISSION TO THE FRESHMAN CLASS

The normal college preparatory course of four years with four units each year, allows for sixteen units. For admission to the freshman class, a candidate must fulfill the requirements in fifteen units in subjects chosen from the list which follows. The subjects prescribed for all students are indicated by the word "required" after the subject. A unit represents a year's study in any subject constituting approximately a quarter of the full year's work or 120 sixty-minute hours of classroom work, two hours of laboratory work being equivalent to one hour of classroom work.

SUBJECTS ACCEPTED FOR ADMISSION

English	3 units	Required 3 units
Latin	4 units	Required 4 units
Additional foreign language	2-4 units	Required 2 units
Greek	2-3 units	
French	2-4 units	
German	2-4 units	
Spanish	2-3 units	
Italian	2-3 units	
Mathematics	3-4 units	
Algebra	2 units	Required 3 units
Plane Geometry	1 unit	
*Solid Geometry	$\frac{1}{2}$ unit	
*Trigonometry	$\frac{1}{2}$ unit	
History	1-3 units	†Required 1 unit
Ancient	1 unit	
American	1 unit	
English	1 unit	
Mediæval and Modern	1 unit	
Modern European	1 unit	
Science	1-2 units	
Biology	1 unit	
Botany	1 unit	
Chemistry	1 unit	
Physical Geography	1 unit	
Physics	1 unit	
Zoology	1 unit	
Harmony	1 unit	
Biblical History	1 unit	

Good students who are candidates for admission by the new plan may be allowed a choice of one of the two elective units from subjects not listed above, with the consent of the Board of Admission, provided the course offered is of non-technical character.

With the consent of the Board of Admission, the privilege of some substitution within the regularly prescribed course of study may be extended to candidates whose preparation is made under exceptional conditions, so that the ordinary requirements cannot be met.

The two methods of admission are by the New Plan (see pages 20, 21) and by examination in all subjects (see pages 22-25).

*A half unit of either Solid Geometry or Trigonometry is not accepted unless a half unit of the other is also presented, making one full unit of Mathematics.

†All students are advised to offer Ancient History for admission. When two or three units of History are accepted, it is required that one unit shall be Ancient History.

A place on the list of candidates for admission will not be reserved for an applicant whose credentials filed in July do not satisfactorily cover twelve of the fifteen units required for admission. The assignment of a room in a college dormitory to a student who is conditioned in any subject does not insure admission since the Board of Admission require examination in September in all units not satisfactorily covered, and reserve the right to exclude any candidate whose preparation is, in their judgment, so defective as to debar her from carrying successfully the work of the freshman year. A candidate cannot be assured of admission who is conditioned in even one unit.

A statement from the applicant's physician to the effect that she is organically sound and in good health, together with a certificate of vaccination must be filed with the Secretary to the Board of Admission before June 1 of the year in which admission is sought. Blank forms for these health reports will be sent to each registered applicant in the spring previous to her proposed entrance. Before a candidate is formally accepted she is given a thorough physical examination. The College reserves the right to reject any candidate if the results of this examination in the opinion of the medical staff justify such action or to accept the candidate only on the understanding that she will take five years to complete the course.

The student who has met all entrance requirements is qualified for immediate matriculation for the Baccalaureate degree in Arts.

All communications concerning admission should be addressed to the Secretary to the Board of Admission, Wellesley College, Wellesley, Mass.

METHODS OF ADMISSION

I.—New Plan of Admission.—It is believed that this new type of admission combines the best elements of the certificate system and of the examination system in that it requires the school record and estimate of character, and also demands four examinations designed to test the candidate's intellectual power, not alone her memory of prescribed facts. Furthermore, the method offers the applicant the fullest opportunity to show her ability in subjects in which she believes herself best qualified.

The plan offers a uniform method of admission for the colleges which have adopted the plan, and gives the school entire freedom in the sequence of its work, making no requirements of certain subjects in the last year.

The examinations required in this plan are of the type known as comprehensive examinations offered by the College Entrance Examination Board.

Admission by the new method depends on two kinds of evidence:

1. Evidence submitted by the school, as follows: (1) a school report covering the entire record of subjects and grades for four years; (2) a statement from the school principal including an estimate of the applicant's scholarly interests, special ability, and character.

2. Evidence submitted by the candidate, consisting of four comprehensive examinations, selected from each of the following groups: (1) English or History, selected by the applicant; (2) a foreign language, selected by the applicant; (3) Mathematics, or Chemistry, or Physics, selected by the applicant; (4) a fourth subject designated by the applicant from the subjects which may be offered for admission. This choice must be approved by the Committee on Admission of the respective colleges.

These four examinations must be taken in one examination season. At least two examinations must cover more than two admission units each. In each subject chosen except history the applicant must take the comprehensive examination covering all the units offered by her for admission.

It is desirable that applicants furnish school records and state the subjects selected for examination before February fifteenth of the year in which the examinations are to be taken.

The Committee on Admission of the individual college must give its permission, based upon the evidence submitted by the school, before the applicant may take the examinations. The comprehensive examinations set by the College Entrance Examination Board are judged by readers appointed by this Board, and forwarded to the individual college for final decision by the college Committee on Admission.

Under the new plan the candidate, if admitted to college, will be admitted free from all conditions. Failure to meet completely the standard in both kinds of evidence required will not necessarily involve rejection of the applicant; the Committee may accept unusual excellence in one part of the credentials submitted as offsetting unsatisfactory evidence or even failure in another part. If the candidate fails of admission in June she may be permitted to take examinations under the old system in September, but she may not take the comprehensive examinations for admission under the new plan before June of the following year.

The comprehensive examinations are conducted in June by the College Entrance Examination Board. Information concerning the character and scope of the examinations will be found in Document 111 of the College Entrance Examination Board.

II.—Old Plan: Examinations in all Subjects.—Candidates must take all examinations in June except such as by permission may be postponed until September. The admission examinations conducted at Wellesley College in June are the examinations of the College Entrance Examination Board of which Wellesley College is a member. These examinations will be held June 16-21, 1924.

The College Entrance Examination Board will furnish a list of other places at which these examinations will be held.

Students entering by the old plan may take either the ordinary or the comprehensive examinations of the College Entrance Examination Board indicated in the following list:

SUBJECT	No. OF UNITS	COLLEGE BOARD EXAMINATIONS	
		Ordinary	Comprehensive
English	3	{ 1 Grammar and Composition 2 Literature or 1 2	Cp. English
History	1 2-3	{ A Ancient History or B Mediæval and Modern History or C Modern History or D English History or E or G American History A with B, C, D, E or G	
Mathematics	3 4	{ A Elementary Algebra Complete C Plane Geometry D Solid Geometry and F Plane Trigonometry	Cp. 3 Elementary Mathematics _____ _____
Latin	4	*1 Grammar { 4 Cicero and Sight Translation of Prose 5 Vergil and Sight Translation of Poetry 6 Advanced Prose Composition	Cp. 4 Four-year Latin or Cp. 3 Three-year Latin and Cp. H. or Cp. K. Fourth-year Latin

*If the examination designated as Latin 6 is taken as a preliminary, the examination on Latin 1 is not required.

SUBJECT	No. OF UNITS	COLLEGE BOARD EXAMINATIONS	
		Ordinary	Comprehensive
Greek	2		Cp. 2 Two-year Greek
	3		Cp. 3 Three-year Greek
French	2		Cp. 2 Two-year French
	3		Cp. 3 Three-year French
	4		Cp. 4 Four-year French
German	2		Cp. 2 Two-year German
	3		Cp. 3 Three-year German
	4		Cp. 4 Four-year German
Spanish	2		Cp. 2 Two-year Spanish
	3		Cp. 3 Three-year Spanish
Biology	1	Biology	
Botany	1	Botany	
Chemistry	1	Chemistry	
Physics	1	Physics	
Physical Geography	1	Geography	
Zoology	1	Zoology	

Entrance examinations in Biblical History, Harmony and Italian, will be conducted by Wellesley College. Applications for these two examinations must be made to the Secretary to the Board of Admission of Wellesley College by May 1.

Examinations for students entering by the old plan of examination in all subjects may be taken in two or more successive years. Students are advised to take final examinations in subjects which they expect to continue in college.

All applications for examinations, and all other inquiries must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th St., New York, N. Y. Applications must be made upon a blank form to be obtained from the Secretary of the College Entrance Examination Board.

A list of places at which the examinations are held is published about March 1. In order that they may receive proper consideration, requests that the examinations be held at particular points should be transmitted to the Secretary of the College Entrance Examination Board *not later than February 1*.

Applications for examination at points in the United States east of the Mississippi River or on the Mississippi River, must be received by the Secretary on or before Monday, May 26, 1924; applications for admission to examination elsewhere in the United States or in Canada must be received on or before Monday, May 19, 1924; and applications for examination at points outside the United States and Canada must be received on or before Monday, May 5, 1924.

Applications received later than the dates named will be accepted when it is possible to arrange for the examination of the candidates concerned, but only upon payment of an additional fee.

If the application is received sufficiently early the examination fee is *nine* dollars for all candidates examined at points in the United States and Canada, and *twenty* dollars for all candidates examined elsewhere. The fee should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

Full information concerning the scope and character of each of the examinations may be found in Document 111, published by the College Entrance Examination Board. Upon request a single copy of this document will be sent to any teacher without charge. In general a charge of twenty cents, which may be remitted in postage, will be made.

SEPTEMBER EXAMINATIONS—Admission examinations are offered at Wellesley College in September. Mount Holyoke College, Vassar College, Smith College, and Wellesley College will jointly conduct examinations in Chicago, September 15-18, 1924. The comprehensive examinations of the College Entrance Examination Board will be used in September for all candidates. Application for September examinations should be made to the Secretary to the Board of Admission of Wellesley College by September first.

SCHEDULE OF EXAMINATIONS**SEPTEMBER, 1924****MONDAY, SEPTEMBER 15**

9-12 A.M. English.
2- 5 P.M. French.

TUESDAY, SEPTEMBER 16

9-12 A.M. Latin.
2- 5 P.M. History.

WEDNESDAY, SEPTEMBER 17

9-12 A.M. Elementary Mathematics.
2- 5 P.M. German, Spanish.

THURSDAY, SEPTEMBER 18

9-12 A.M. Physics, Chemistry.
2- 5 P.M. Greek.
Advanced Mathematics.

REGENTS EXAMINATIONS.—Regents examinations with a rating of 75 per cent may be offered under certain conditions in place of the examinations of the College Entrance Examination Board. Credits must be presented on the card verified by the State Board of Education of New York.

DEFINITION OF REQUIREMENTS

The number enclosed in parentheses following the subject indicates the number of units assigned to that subject; that is, the number of years with five recitations a week which will normally be required in the secondary school for adequate preparation in the subject.

ENGLISH (3)

The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation, and the development of the habit of reading good literature with enjoyment.

Grammar and Composition.—English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from her reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in her recitations and various exercises, whether oral or written.

To meet the requirement in Composition, there should be practice in writing equivalent to weekly themes the first two years, and fortnightly

themes the last two years of the preparatory course. Themes should be accompanied by simple outlines. The following books are suggested: Scott and Denney's *Composition—Rhetoric*; Neal's *Thought Building in Composition*; Robins and Perkins' *Introduction to the Study of Rhetoric* supplemented by Herrick and Damon's *Composition and Rhetoric*; Shackford and Judson's *Composition—Rhetoric—Literature*; Manly and Rickert's *The Writing of English*.

Literature.—The second object is sought by means of the reading and study of a number of books, from which may be framed a progressive course in literature covering four years. The student should be trained in reading aloud and be encouraged to commit to memory notable passages both in verse and in prose. As an aid to literary appreciation, she is further advised to acquaint herself with the most important facts in the lives of the authors whose works she reads and with their place in literary history. A few of these books should be read with special care, greater stress being laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions.

A. READING.—The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by giving her a first-hand knowledge of some of its best specimens. She should read the books carefully, but her attention should not be so fixed upon details that she fails to appreciate the main purpose and charm of what she reads. Suggestions for books to be read by students who intend to take the comprehensive examination include the following list with some additions. Knowledge of the subject-matter of particular books is not necessary for this type of examination, but the requisite ability cannot be gained without a systematic and progressive study of good literature. From each group two selections are to be made, except that for any book in Group V a book from any other may be substituted. For the lists of readings recommended for the years 1926-1928, consult Document 111 of the College Entrance Examination Board.

LIST FOR 1924-1925.

GROUP I.—Dickens: *A Tale of Two Cities*; George Eliot: *Silas Marner*; Scott: *Quentin Durward*; Stevenson: *Treasure Island* or *Kidnapped*; Hawthorne: *The House of the Seven Gables*.

GROUP II.—Shakespeare: *Merchant of Venice*, *Julius Caesar*, *King Henry V*, *As You Like It*.

GROUP III.—Scott: *The Lady of the Lake*; Coleridge: *The Ancient Mariner*; and Arnold: *Sohrab and Rustum*. A collection of representative verse, narrative and lyric. Tennyson: *Idylls of the King* (any four), *The Æneid* or the *Odyssey* in a translation of recognized excellence, with the omission, if desired, of Books I-V, XV, and XVI of the *Odyssey*.

GROUP IV.—*The Old Testament* (the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther); Irving: *The Sketch Book* (about 175 pages),

Addison and Steele: *The Sir Roger de Coverley Papers*; Macaulay: *Lord Clive*; Parkman: *The Oregon Trail*; Franklin: *Autobiography*.

GROUP V.—A modern novel, a collection of short stories (about 150 pages), a collection of contemporary verse (about 150 pages), a collection of prose writings on matters of current interest (about 150 pages), two modern plays. All selections from this group should be works of recognized excellence.

B. STUDY.—This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made. For the list of books for the years 1926-1928, consult Document 111 of the College Entrance Examination Board.

LIST FOR 1924-1925.

GROUP I.—Shakespeare: *Macbeth*, *Hamlet*.

GROUP II.—Milton: *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*; Browning: *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, *The Pied Piper*, "*De Gustibus—*" *Instans Tyrannus*, *One Word More*.

GROUP III.—Macaulay: *Life of Johnson*; Carlyle: *Essay on Burns*, with a brief selection from Burns's Poems; Arnold: *Wordsworth*, with a brief selection from Wordsworth's Poems.

GROUP IV.—Burke: *Speech on Conciliation with America*; a collection of orations, to include at least *Washington's Farewell Address*, *Webster's First Bunker Hill Oration*, and *Lincoln's Gettysburg Address*.

HISTORY (1, 2 or 3)

Prescribed Unit.—A full year course in one of the following subjects:—

(1) Ancient History, including a brief introductory study of the earlier nations, but with special emphasis on Greek History to the death of Alexander, and on Roman History to the death of Charlemagne. (2) English History, with due regard to social and political development. (3) American History, with the elements of Civil Government. (4) Mediæval and Modern History. (5) Modern European History.

All Candidates are advised to offer the course in Ancient History.

In the subject chosen, the student should acquire accurate knowledge of the history as presented in a standard text-book of not less than 300 pages, and should read such fuller authorities as may be available, in amount not less than 500 pages. Some practice in drawing maps to illus-

trate territorial changes, in making digests of lectures and reading, and in preparing verbal or written reports on subjects assigned for individual investigation is essential to successful work. For further suggestions about preparation students are referred to Document 111 of the College Entrance Examination Board.

Elective Units.—A candidate may offer one or two of the five subjects mentioned above as additional units in History, provided that one of the units offered is Ancient History.

MATHEMATICS (3 or 4)

Algebra.—Factors, Common Divisors and Multiples, Ratio and Proportion, Theory of Exponents including Imaginaries, Radicals and Equations involving Radicals, Inequalities, Quadratic Equations (including the theory), Binomial Theorem, Arithmetic and Geometric Progressions, Graphical Methods.

Plane Geometry.—As found in Chauvenet, or its equivalent.

Deficiency in preparation usually results from one or more of the following causes: the use of text-books which are too elementary, insufficient time spent in preparation, neglect of exercises in original demonstration in Geometry, and of reviews in both Algebra and Geometry. It is strongly urged that there be constant exercise in original demonstration in Geometry, with frequent written examinations in both Algebra and Geometry, the problems proposed being drawn from other sources than the text-books.

Solid Geometry and Trigonometry.—The requirement is met by the courses outlined in the report of the College Entrance Examination Board, Document 111. A half unit of either subject without the other may not be counted for admission.

LATIN (4)

Candidates should be familiar with the forms and syntax of the language and possess a vocabulary sufficient to translate Latin into idiomatic English and English into correct Latin. They should also be able to translate at sight Latin prose and poetry of moderate difficulty and to read Latin prose and verse according to the Roman method of pronunciation with strict attention to vowel quantities. To attain such proficiency not less than five forty-minute periods a week for four years should be given to the study of Latin. The *amount* of prepared reading should not be less than four books of Cæsar's *Gallic War*, seven orations of Cicero (counting the *Manilian Law* as two) and six books of Vergil's *Æneid*. The reading may be selected from other works of the authors named above or from other suitable authors, but must include the *pro Archia* and two other orations of Cicero and two books of the *Æneid*.

The ordinary examinations of the College Board which are used by Old Plan candidates will be based on the following prescribed reading:

In 1924 and 1925. Cicero, the fourth oration against *Catiline* and the oration for the *Manilian Law*; Virgil, *Æneid*, I and IV; Ovid, *Metamorphoses*, Book III, 1-137 (Cadmus); IV, 55-166 (Pyramus and

Thisbe), and 663-764 (Perseus and Andromeda); VI, 165-312 (Niobe); VIII, 183-235 (Daedalus and Icarus); X, 1-77 (Orpheus and Eurydice); XI, 85-145 (Midas).

In 1926, 1927, and 1928. Cicero, the first oration against *Catiline*, the oration for *Archias*, and the impeachment of *Verres*, *Actio Secunda*, IV, ch. 52-60 (The Plunder of Syracuse); Virgil, *Æneid*, III and VI; Ovid, *Metamorphoses*, Book I, 313-415 (Deucalion and Pyrrha); II, 1-328 (Phaethon); VII, 1-158 (The Golden Fleece); VIII, 616-724, (Philemon and Baucis); X, 560-680 (Atalanta's Race).

Accompanying the different passages will be questions on the subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set for translation will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.

SUGGESTIONS CONCERNING PREPARATION.—Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—just as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded, and from the form and the position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphor, nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

It is of special importance that practice in writing easy Latin *at sight* should be continued *throughout the entire period of preparation* in connection with the reading of the Latin authors. In the last year special attention should be given to translating continuous English into Latin both in the prepared and sight work.

A written examination cannot test the ear or tongue, but proper instruction in any language will necessarily include the training of both. The school work in Latin, therefore, should include much reading aloud, writing from dictation, and translation from the teacher's reading. Learning suitable passages by heart is also very useful, and should be more practiced. The work in composition should give the student a better understanding of the Latin she is reading at the time, and greater facility in reading. The teachers of Latin in the preparatory schools are urged to insist upon the use of good English in translation.

The study of Greek is strongly recommended to candidates who plan

to elect courses in Latin in college. Ability to read at sight easy French or German prose is of great advantage to all classical students.

GREEK (2 or 3)

2 Unit Requirement.—During the two years the student should acquire a knowledge of the language sufficient to enable her (1) to translate at sight simple passages of Attic prose, and to answer questions on ordinary forms and constructions; (2) to translate into Greek a passage of connected English narrative, based on Xenophon; (3) to read Greek aloud with correct pronunciation and with full expression of the sense of the passage.

The prescribed study includes—(1) Grammar: inflections; the simpler rules for composition and derivation of words; use of cases; construction of sentences, with particular regard to the use and meanings of the moods. (2) Prose Composition: regular practice in writing or speaking Greek, with at least twenty written exercises, including some connected passages. (3) Three books of Xenophon's *Anabasis*, or its equivalent.

SUGGESTIONS CONCERNING PREPARATION.—The acquiring of a good working vocabulary should begin with the first lesson, and constant practice in the use of the more common words should be kept up throughout the course. The students should learn to recognize the words by hearing as well as by sight, and should be able to use them in speech as well as in writing. Writing Greek from dictation, learning short passages by heart, and putting simple English sentences into Greek orally, or answering in Greek simple questions asked in Greek serve not only to fix vocabulary and forms in the students' mind, but also to give them a feeling for the natural Greek form of expression.

3 Unit Requirement.—In addition to the preparation for the 2 unit requirement stated above, the student must be able to translate at sight a passage from Homer, to read it with a correct expression of the rhythm, and to answer a few questions on the Homeric forms and on the subject-matter.

The prescribed study includes: three books of Homer's *Iliad*; Prose Composition, continued practice in translation into Attic prose of connected passages of English.

FRENCH (2, 3 or 4)

The requirements follow the recommendation of the Modern Language Association embodied in Document 111 of the College Entrance Examination Board.

2 Unit Requirement.—At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

During the first year the work should comprise:—(1) Careful drill in pronunciation. (2) The rudiments of grammar, including the inflection

of the regular and the more common irregular verbs, the plural nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax. (3) Abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression. (4) The reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English) and in reproducing from memory sentences previously read. (5) Writing French from dictation.

During the second year the work should comprise:—(1) The reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches. (2) Constant practice, as in the previous year, in translating into French easy variations upon the texts read. (3) Frequent abstracts, sometimes oral and sometimes written, of portions of the text already read. (4) Writing French from dictation. (5) Continued drill upon the rudiments of grammar, with constant application in the construction of sentences. (6) Mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

3 Unit Requirement.—At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

This work should comprise the reading of from 400 to 600 pages* of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.†

SUGGESTIONS CONCERNING PREPARATION FOR THE 2 AND 3 UNIT REQUIREMENTS.—(1) Emphasis should be laid on the correct daily use of the spoken language in the class room, on the correct and intelligent reading of French (apart from translation) and on direct composition, including the writing of short themes in French. (2) From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—just as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded, and from the form and the position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the work that the student has to do. (3) It is particularly urged that the reading be chosen *from nineteenth century*

*i. e., In addition to the 2 unit requirement. A part of this may be critical reading, a part rapid or outside reading.

†From texts not previously memorized.

writers of prose, verse, and drama, and if possible from more than five authors.

The texts suggested are:—(1) For the two unit requirement: Laboulaye: *Contes bleus*; Daudet: *Trois Contes Choisis*; France: *Abeille*; Malot: *Sans Famille*; de la Brète: *Mon Oncle et Mon Curé*; Enault: *Le Chien du Capitaine*; Legouvé et Labiche: *La Cigale chez les Fourmis*; Daudet: *Choix d'Extraits*, or *Le Petit Chose*; Vigny: *La Canne de Jonc*; Augier: *Le Gendre de M. Poirier*; Foncin: *Le Pays de France*, or Lavis: *Histoire de France, IIe année* (Armand Colin, Paris). (2) For the 3 unit requirement: Lamartine: *Scènes de la Révolution française*; Maupassant: *Huit Contes Choisis*; About: *Le Roi des Montagnes*; Balzac: *Le Curé de Tours*; Colin: *Contes et Saynètes*; Colin: *Advanced Sight Translation*; Sandeau: *Mlle. de la Seiglière*; Scribe et Legouvé: *Bataille de Dames*.

4 Unit Requirement.—For suggestions concerning preparation for the four unit requirement, students are referred to Document 111 of the College Entrance Examination Board.

GERMAN (2, 3 or 4)

The requirements follow the recommendations of the Modern Language Association embodied in Document 111 of the College Entrance Examination Board.

2 Unit Requirement.—During the first year the work should comprise:—(1) Careful drill upon pronunciation. (2) The memorizing and frequent repetition of easy colloquial sentences. (3) Drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of everyday life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order. (4) Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression. (5) The reading from 75 to 100 pages* of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise:—(1) The reading of from 150 to 200 pages* of literature in the form of easy stories and plays. (2) Accompanying practice, as before, in the translation into German of easy variations upon the texts read and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages. (3) Continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil, first, to use her knowledge with facility in the formation of sentences, and, secondly, to state her knowledge correctly in the technical language of grammar.

*See "Suggestions Concerning Preparation," on page 33.

3 Unit Requirement.—The work should comprise in addition to the two unit requirement, the reading of about 400 pages* of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the text read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

SUGGESTIONS CONCERNING PREPARATION FOR THE 2 AND 3 UNIT REQUIREMENTS.—(1) The books selected for class study should be thoroughly German in character and content. Intensive work on a comparatively small number of pages is preferred to a more superficial study of a larger number of pages. For the two unit requirement the number of pages read in class should, in general, not exceed 300; but in no case should the amount be less than 225 pages. Not more than 100 of these pages should be taken from readers arranged especially for beginners. For the three unit requirement not more than 600 pages in all (i.e., 300 in addition to the maximum amount for the two unit requirement) should, in general, be read; but never less than 500 pages. Not more than one work of the classical period of German Literature should be included. Besides this intensive reading, some *rapid home reading* of easier texts (100 pages or more) is strongly urged. (2) The results desired can *not* be obtained if a considerable portion of the time is spent on translation from German into English, or vice versa. (3) Features that should not be neglected are—*a.* Vocabulary: the careful study of a goodly number of common words and expressions drawn chiefly from the texts read. *b.* Frequent practice in the oral and written use of the language *without the medium of English*. This should consist partly in answering in German questions put in German, based on the texts read intensively in class, partly in reproducing in German, without the aid of questions, the contents of these texts (*Freie Reproduktion*).

4 Unit Requirement.—For suggestions concerning preparation for the four unit requirement, students are referred to Document 111 of the College Entrance Examination Board.

ITALIAN (2)

The College Entrance Examination Board makes no recommendations regarding Italian, but the requirements are along the lines of those for French and Spanish as stated in Document 111. At the end of the first year's work, the pupil should be able to read simple Italian, translate from Italian into English; ask and answer simple questions involving the prime necessities of life; write simple notes or statements. The second year should be a development of the first, stress to be laid on composition and conversation.

During the first year the work should comprise: (1) The rudiments of grammar including the inflection of the regular and more common irregular verbs; the inflection of nouns, adjectives, participles and pro-

*See "Suggestions Concerning Preparation," on page 33.

nouns; the use of pronouns, adverbs, prepositions, and conjunctions and the elementary rules of syntax. (2) Written and oral exercises involving rules of grammar and forms of expression. (3) Careful drill in pronunciation. (4) Careful reading and accurate rendering of from 100-150 duodecimo pages of graduated text. (5) Memorizing from 100-150 lines of poetry with special attention to pronunciation. (6) Writing Italian from dictation.

During the second year the work should comprise: (1) More advanced grammar work with special stress on the irregular verb, the subjunctive mood, uses of tenses, and of the conjunctive pronouns. (2) Reading of from 250-350 pages of modern prose—fiction, plays or historical and biographical sketches. (3) Compositions (15-20), translations and abstracts with constant application of rules of grammar. (4) Memorizing 150-200 lines of poetry. (5) Writing from dictation. (6) Verbal reports on reading or assigned subjects.

SUGGESTIONS REGARDING PREPARATION.—(1) Grammar: verb drill, uses of tenses, of the subjunctive mood, and of conjunctive pronouns. (2) The reading should be selected with the view of giving the pupil an insight into Italian life, at the same time training in accurate pronunciation and translation. (3) The student should become accustomed to the ordinary spoken language of the class room. The subjects for composition should include biographical sketches and descriptions of views (photographs) of Italian cities.

The texts suggested are:—

Bowen's *Italian Reader*; Collodi, *Pinocchio*; Collodi, *Viaggio di Giannettino*; De Amicis, *La vita militare*; Giacosa, *La partita a scacchi*; Manzoni, *I promessi sposi*; Pellico, *Le mie prigioni*; Martinengo—Cesaresco, *Patriotti Italiani*; Morandi, *Antologia della prosa moderna*; *Le cento migliore liriche*; *Oxford Book of Italian Verse*.

SPANISH (2 or 3)

The requirements follow the recommendations of the Modern Language Association embodied in Document 111 of the College Entrance Examination Board. At the end of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life or based upon a portion of the Spanish text read and to answer questions on the rudiments of the grammar, as indicated below.

2 Unit Requirement.—During the first year the work should comprise: (1) Careful drill in pronunciation. (2) The rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives and pronouns and the elementary rules of syntax. (3) Exercises containing illustrations of the principles of grammar. (4) The careful reading and accurate rendering into good English of about 100 pages of easy prose and verse, with translation into Spanish of easy variations of the sentences read. (5) Writing Spanish from dictation.

During the second year the work should comprise: (1) The reading of about 200 pages of prose and verse. (2) Practice in translating Spanish into English, and English variations of the text into Spanish. (3) Continued study of the elements of grammar and syntax. (4) Mastery of all but the rare irregular verb forms and of the simpler uses of the modes and tenses. (5) Writing Spanish from dictation. (6) Memorizing of easy short poems. The emphasis should be placed on careful, thorough work with much repetition rather than upon rapid reading.

SUGGESTIONS CONCERNING PREPARATION.—(1) Grammar: verb drill; difference between *ser* and *estar*; use and position of pronouns; prepositions required with different verbs and adjectives; use of subjunctive and infinitive. (2) In reading, two ideas should be kept in mind: (a) accurate translation especially of idiomatic expressions; (b) a gradual development of the power to think in Spanish, by requiring the student to explain the meaning of words and phrases in Spanish and give variations of text also in Spanish. (3) From the beginning the student should gradually become accustomed to the use of the spoken language in the class room, training the ear by means of short talks on different subjects given by the teacher, and the tongue by the different methods already suggested. Original work in composition should also be required.

The texts suggested are:—

A collection of easy short stories and lyrics carefully graded; Pérez Escrich, *Fortuna*; Ramos Carrión y Vital Aza, *Zaragüeta*; *Tres Comedias Modernas*; Pedro de Alarcón, *El Capitán Veneno*; Juan Valera, *El pájaro verde*; Palacio Valdés, *José*; José Selgas, *La mariposa blanca*; Carolina Marcial Dorado, *España Pintoresca*; the selected short stories of Pedro de Alarcón or Antonio de Trueba.

3 Unit Requirement.—This work should be a continuation of the elementary work, with certain added features, such as (1) conversation and in general much expression in spoken Spanish of connected ideas and (2) the translation of connected English prose into Spanish. There should be continued review of the grammatical rules with particular attention to the verb system and to salient facts of syntax.

Books: A grammar; a composition-book; about 300 pages of intermediate texts which may be selected from the following: Pérez Galdós, *Marianela* or *Dña Perfecta*; Selgas, *La mariposa blanca*; Palacio Valdés, *La hermana San Sulpicio*; Isla's version of the *Gil Blas*; a collection of essays dealing with Spanish or Spanish-American life and customs; Moratín, *El sí de las niñas*; Larra, *Partir a tiempo*; plays of the Alvarez Quintero brothers; plays of Benavente.

BIOLOGY (1)

The requirement is met by the course outlined in Document 111 of the College Entrance Examination Board.

BOTANY (1)

The requirement may be met in one of two ways:

A. By the course outlined in Document 111 of the College Entrance Examination Board.

B. By covering the main features in the course as outlined in the Laboratory Guide for the Introductory Course in Wellesley College. Copies of these Guides may be secured if desired through the office of the Board of Admission of Wellesley College. Individual laboratory work by the students is essential and should receive at least double the amount of time given to lecture and recitation.

CHEMISTRY (1)

The requirement is met by the course outlined in Document 111 of the College Entrance Examination Board. The student should perform experiments in the laboratory to illustrate the properties of the most important elements, both metallic and non-metallic, and their compounds, and it is strongly recommended that a few of these experiments should be of a quantitative nature. Work in qualitative analysis is not recommended.

PHYSICAL GEOGRAPHY (1)

The requirement is met by the course outlined in Document 111 of the College Entrance Examination Board.

PHYSICS (1)

The requirement is met by the course outlined in Document 111 of the College Entrance Examination Board.

ZOOLOGY (1)

The requirement is met by the course outlined in Document 111 of the College Entrance Examination Board.

MUSIC (1)

The requirement in Music (Harmony) is met by examination at Wellesley College on the following:—(1) Knowledge of the following chords: (a) all the triads in the major key; (b) all the triads in the minor key; (c) the inversions of all triads; (d) the dominant seventh chord and its inversions; (e) the diminished seventh chord and its inversions. (2) Knowledge of all scales, major, minor (harmonic and melodic), and chromatic, with their proper notation. (3) Knowledge of the proper way of making a manuscript. (See "How to Write Music" by Harris, published by the H. W. Gray Co., New York.) (4) Knowledge of figured bass; this will be demonstrated by adding soprano, alto, and tenor to a given figured bass. (5) Knowledge of harmonizing a melody; this will be tested by harmonizing a given melody, adding alto, tenor, and bass. Emphasis should be placed on the harmonization of melody.

NOTE.—Students who have never studied figured bass will be given an unfigured bass to harmonize.

BIBLICAL HISTORY (1)

The requirement is met by Course I and either Course II or III as outlined by the Commission on Definition of Unit of Bible Study for Secondary Schools. Statements of these courses can be obtained from the Council of Church Boards of Education in the United States, 111 Fifth Avenue, New York City.

ADMISSION TO ADVANCED STANDING

Candidates for advanced standing must fulfill the requirements for admission to the freshman class, and when not entering from other colleges must pass examinations in a sufficient number of hours of work to gain full standing with the class which they wish to join. All examinations on courses offered for advanced credit must be taken at Wellesley in June. Special arrangements must be made for admission to these examinations, and applications must be received by May fifteenth.

A candidate whose college credentials show that she has covered the admission requirements for the freshman class and has completed a highly satisfactory year of work at another college may, at the discretion of the Committee on Advanced Standing, be admitted without examination to the courses for which her previous training seems to qualify her. *The number of students to be admitted to advanced standing in any year is limited. In 1924 and thereafter the admission of all candidates for advanced standing will be on a competitive basis.*

An applicant desiring to enter under this provision must make a complete written statement of the work on which she bases her application. Blank forms of application will be furnished by the College Recorder. An application fee of \$10 is required of all applicants and no registration is recorded until this fee has been paid. (See page 129.)

Much importance is attached to the quality of the work offered. In order to be recognized as a candidate for advanced standing, a student must present evidence in the previous school and college records and in letters from former instructors that she is a student of excellent ability and unusual promise. The College Recorder will correspond with the college attended by the applicant and request her entire record and letter of honorable dismissal. The required credentials for all candidates are due July first. The decision as to the successful applicants for admission to advanced standing will be made in the summer of the year of entrance, after the reports from the various colleges have been received.

Candidates admitted from other colleges will be required to register during the first year as Unclassified Students. At least two years of residence are required to obtain the B.A. degree, of which one must be the senior year. The work of these two years must include all of the prescribed work (see pages 124, 125) not covered by the credentials submitted.

All correspondence should be addressed to the College Recorder.

ADMISSION OF CANDIDATES FOR THE M.A. DEGREE

Candidates for the degree of Master of Arts must be graduates of Wellesley College or of other institutions of satisfactory standing, and must present adequate credentials as to their ability to carry on the work for the M.A. degree.

Applications for admission as graduate students in all departments (including Hygiene and Physical Education) should be made upon forms which will be furnished by the College Recorder on request. It is desirable that the application be sent by May first of the year in which the student proposes to enter. It should be accompanied (1) by the official record of admission subjects, college courses and grades, (2) by a copy of the catalogue of the institution attended marked to indicate the courses taken, (3) if possible, by papers and reports of work.

A matriculation fee of five dollars is payable when a student is accepted as a candidate for the Master's degree. The amount of this fee will be deducted from the diploma fee of twenty-five dollars payable when the degree is received.

Eighteen scholarships, as described on page 132, are open to accepted candidates for the M.A. degree.

Circulars containing full information for graduate students will be sent on application to the College Recorder. For requirements for the M.A. degree see page 126.

ADMISSION OF STUDENTS NOT CANDIDATES FOR A DEGREE

Applicants who give satisfactory evidence of ability to pursue advanced courses of study may be admitted at the discretion of the Board of Admission, provided that they satisfy the requirements of the departments which they propose to enter. It will be noted that opportunities of prosecuting work along special lines are thus open to persons of experience and success in teaching who possess the requisite qualifications for admission to college classes.

Applicants of less maturity and acquirement are not ordinarily admitted, but if such desire admission they must expect to meet by examination the requirements prescribed for admission to the freshman class, or a full equivalent for them and to satisfy such additional requirements as are prescribed by the departments which they propose to enter. Specific statements of these requirements in Music will be found on page 107; in Hygiene and Physical Education on page 86.

All courses, graduate as well as undergraduate, are open to special students, subject to the conditions stated by the various departments; but every such student is expected to choose a primary subject to which she should devote the greater part of her time. A student who creditably completes a prescribed group of courses will be granted a certificate.

As the capacity of halls of residence is not sufficient for candidates for degrees, special students cannot be lodged in the college buildings. Comfortable homes may be found in the village at about the same expense as in college houses.

Correspondence should be addressed to the Secretary to the Board of Admission.

COURSES OF INSTRUCTION

The following Courses of Instruction are offered by the several departments. The College reserves the right to withdraw the offer of any course not chosen by at least six students.

All courses are classified in grades I, II, III; grade I including elementary courses and grade III the most advanced courses. Grade I courses are numbered 101, etc.; grade II courses 201, etc.; grade III courses 301, etc.

CLASSICAL ARCHÆOLOGY

PROFESSOR : ALICE WALTON, PH.D.

201. HISTORY OF CLASSICAL SCULPTURE. (Not offered in 1923-24.) The course will present the principles of Greek and Roman Sculpture, as developed from the earliest beginnings through the Great Periods into the Roman, with references to the minor arts, such as vase painting, coins, and so forth, as they are related to the main development. The work of the fifth and fourth centuries will be especially emphasized.

Open to students who have completed one full course in either Art, or Greek, or Latin. Three hours a week for a year. MISS WALTON.

301‡. HISTORY OF GREEK POTTERY. (Not offered in 1923-24.) The course will include the sequence of decorative styles and the principles of design in vase painting with especial emphasis upon the great period of the fifth century. Constant reference will be made to the collection of vases in the Boston Museum of Fine Arts.

Open to students who have completed course 201 and have studied Greek for one year. Three hours a week for the first semester.

MISS WALTON.

302‡. GREEK AND ROMAN COINS. (Not offered in 1923-24.) Greek coin types will be considered especially for their artistic quality, Roman coins for their historical value.

Open to students who have completed course 301. Three hours a week for the second semester.

MISS WALTON.

‡Archæology 301.302 and Latin 303.304 are not usually given in the same year.

ART

PROFESSOR : ALICE VAN VECHTEN BROWN. (CHAIRMAN).
 ASSOCIATE PROFESSOR : MYRTILLA AVERY,³ B.L.S., M.A.
 LECTURERS : ELIZA JACOBUS NEWKIRK,³ M.A.
 HARRIET BOYD HAWES, M.A., L.H.D.
 MARGARET GILMAN.
 MARGARET MALL VIGNOLES,⁷ B.A.
 ASSISTANT : AGNES ABBOT.
 ASSISTANT CURATOR : CELIA HOWARD HERSEY, B.A.
 MUSEUM ASSISTANTS : ALICE CHURCHILL MOORE.
 ELSIE ANTOINETTE CARLSON.

101. INTRODUCTORY COURSE IN THE HISTORY OF ART. This course aims to develop an appreciation of æsthetic values by means of a close study of photographs and the works themselves, through the laboratory method. First semester—A review of the general development of Pre-Christian architecture, sculpture and painting. Second semester—Early Christian and Byzantine art and Mediæval sculpture, including culminating examples of French Gothic sculpture. Drawing and other practical work is required.

Open to freshmen, sophomores, and juniors. No prerequisites. Three hours a week for a year.
 First Semester, MRS. HAWES.
 Second Semester, MISS BROWN, MISS ABBOT.

102. INTRODUCTORY COURSE IN HISTORY OF ART. (Not offered in 1923-24.)

103†. STUDIO PRACTICE. Water color painting, drawing, sketching, modelling, and oil painting.

Open to sophomores, juniors, and seniors. No prerequisites. Three hours a week for a year. (Nine hours of studio practice.)
 MISS BROWN, MISS ABBOT.

203. OUTLINE COURSE IN THE HISTORY OF ART. This course furnishes an outline of the development of styles in architecture, sculpture, and painting (excluding the Far East), and aims to develop observation and æsthetic appreciation as well as to relate important monuments to their contemporary civilization. This course is not open to students who have taken or are taking any other history course in the Art Department.

Open to seniors only. No prerequisites. Three hours a week for a year.
 MISS GILMAN.

204†. STUDIO PRACTICE. Design.

Open by permission of the department to juniors and seniors who have completed course 103. Three hours a week for the first semester. (Nine hours of studio practice.)
 MISS ABBOT.

205. SECOND YEAR INTRODUCTORY COURSE IN THE HISTORY OF ART. First semester—Introduction to Mediæval and Early Renaissance paint-

³Absent on leave.

⁷Appointed for the second semester only.

†See note on page 42.

ing, including some reference to Renaissance sculpture. Second semester—Introduction to architecture, an outline review of Romanesque and Gothic architecture, with an introduction to Renaissance architecture. Laboratory work is required.

Open to students who have completed course 101 or 102. Three hours a week for a year.

First semester, MISS BROWN.

Second semester, MRS. VIGNOLES.

303. HISTORY OF ITALIAN PAINTING. A general review of the movements and schools of the 14th and 15th centuries from Giotto and Duccio through Botticelli with some discussion of the most important masters of the sixteenth century. Laboratory work is required.

Open to students who have completed course 205. In 1923-24 open to students who have completed course 201 or 202, and in the second semester, as a semester course, to students who have completed courses 301-302. Three hours a week for a year.

MISS BROWN.

304. HISTORY OF RENAISSANCE ARCHITECTURE. (Not offered in 1923-24.)

Open to students who have completed course 205. Three hours a week for a year.

MISS NEWKIRK.

305. ADVANCED HISTORY OF PAINTING. (Not offered in 1923-24.)

Open to students who have completed course 303. Three hours a week for the second semester.

307. MINOR ARTS OF THE MEDIÆVAL PERIOD. (Not offered in 1923-24.)

Open to students who have completed a course of Grade III. Three hours a week for a semester.

MISS AVERY.

308. HISTORY OF CLASSICAL ART. This course will present the principles of Greek and Roman Art as developed from the earliest beginnings through the Great Periods into Roman, including reference to the minor arts, such as vase painting, coins, etc., as they are related to the main development. Visits to the Museum of Fine Arts in Boston.

Open to students who have completed course 205. In 1923-24 open to students who have completed course 201. Three hours a week for a year.

MRS. HAWES.

309. SPECIAL STUDIES IN THE HISTORY OF ARCHITECTURE. (Not offered in 1923-1924.)

Open to students who have completed course 304. Three hours a week for the first semester.

MISS NEWKIRK.

310. HISTORY OF MEDIÆVAL AND RENAISSANCE SCULPTURE. (Not offered in 1923-24.)

Open to students who have completed Course 205. Three hours a week for a year.

MISS AVERY.

NOTE.—After *one full course* in the History of Art has been completed, *three hours of practical work* as indicated in 103, 204, above, equivalent to nine hours of practice, may count toward the degree; *four and one-half hours of practical work*, equivalent to thirteen and one-half hours of practice, may so count, if *six hours* in the History of Art have been completed. This practical work is arranged solely to develop such qualities of observation and appreciation as are necessary to the critical study of Art History.

Students in Art courses are required to use laboratory methods, examining and comparing the photographs used in illustration. Special studies in museums are assigned.

Previous preparation in drawing is not required.

The art library is open to students from 8.00 to 5.30 daily, and from 7.15 to 9.15 on certain evenings.

ASTRONOMY

PROFESSOR : JOHN CHARLES DUNCAN, PH.D. (CHAIRMAN.)

INSTRUCTOR : LEAH BROWN ALLEN, M.A.

ASSISTANT : KATHARINE BULLARD DUNCAN.

LABORATORY ASSISTANTS : BARBARA MANLEY PHILIPS, B.A.

DOROTHY LOUISE SCHWAN, B.A.

101. DESCRIPTIVE ASTRONOMY. A general survey of the facts of Astronomy, of the methods by which they are obtained and of the theories that account for them; facts with which every educated person should be familiar if only to understand the astronomical allusions occurring in literature and to be alive to the beauty of the order that is about us.

Open to all undergraduates. Three hours a week for a year.

MR. DUNCAN, MISS ALLEN.

MRS. PHILIPS, MISS SCHWAN.

201. ADVANCED GENERAL ASTRONOMY. (Not given in 1923-1924.) This course will take up in greater detail many of the topics which are treated in a general way in course 101, and will treat other topics as well. It is intended to meet the requirements of students who, though not specializing in Astronomy, are not satisfied with the knowledge of the subject that can be obtained from a single course. Original memoirs will be consulted and the telescopes used.

Open to students who have completed course 101. Three hours a week for a year.

MR. DUNCAN.

202. OBSERVATORY PRACTICE. Practical work in the Astronomy of position. Determination of time, longitude and latitude. Use of the sextant, transit instrument and micrometer. Practical computations.

Open to students who have completed course 101. Three hours a week for a year.

MISS ALLEN.

203. OBSERVATORY PRACTICE. Use of the observatory equipment in work not covered by course 202. The specific subjects will vary from year to year with such changing conditions as the configuration of the planets, the appearance of new stars and comets, the occurrence of eclipses, etc. The course may be taken repeatedly.

Open to students who have completed course 101. One hour a week for a year. By special permission, two or three hours a week for a year.

MR. DUNCAN, MISS ALLEN.

301. ASTROPHYSICS. (Not offered in 1923-24.) Astronomical spectroscopy, photography, and photometry. The laws of radiation. Solar and sidereal physics; stellar motions.

Open to students who have completed a course in Differential Calculus and either a course in Astronomy or one in Optics. Three hours a week for a year.

MR. DUNCAN.

302. DETERMINATION OF ORBITS. Determination, from three observations, of the elliptic and parabolic orbits of bodies in the solar system. Orbits of visual and spectroscopic binary stars. Theory and practice.

Open to students who have completed Astronomy 101 and a year of Calculus. Three hours a week for a year.

MR. DUNCAN.

303. CELESTIAL MECHANICS. (Not offered in 1923-24.) The attraction of bodies of various forms under Newton's law of gravitation. The problems of two and of three bodies. Perturbations.

Open to students who have completed Differential and Integral Calculus. Three hours a week for a year.

MR. DUNCAN.

BIBLICAL HISTORY, LITERATURE, AND INTERPRETATION

PROFESSOR : ELIZA HALL KENDRICK, PH.D. (CHAIRMAN.)

ASSOCIATE PROFESSORS : ADELAIDE IMOGENE LOCKE,³ B.A., S.T.B.

OLIVE DUTCHER,³ M.A., B.D.

ASSISTANT PROFESSORS : MURIEL ANNE STREIBERT, B.A., B.D.

LOUISE PETTIBONE SMITH, PH.D.

SEAL THOMPSON, M.A.

GORDON BOIT WELLMAN, TH.D.

INSTRUCTOR : MOSES BAILEY, M.A., B.D.

ASSISTANT : JULIA HELEN MARTIN, B.A.

The requirement in Biblical History for a degree is met by courses 101 and 102, followed by either 202 or 205.

101.102. THE DEVELOPMENT OF THOUGHT IN THE OLD TESTAMENT. It is the purpose of this course to offer studies in the development of religion and ethics in the Old Testament. There will be included such historical study of Hebrew national life and such presentation of the

³Absent on leave.

literary problems connected with the Old Testament writings as are necessary to make intelligible the development of thought.

Required of sophomores. Course 101, three hours first semester. Course 102, three hours second semester. Course 101 will be offered also in the second semester, and course 102 in the first semester.

MISS STREIBERT, MISS SMITH, MR. BAILEY, MISS MARTIN.

201. DEVELOPMENT OF THOUGHT IN LATER JEWISH LITERATURE. (Not offered in 1923-24.) The course will deal with the development of thought among the Jews during the period approximately from 300 B.C. to 100 A.D. Particular emphasis will be laid upon such topics as the Messianic hope, angelology and demonology, life after death and the resurrection, wisdom thought, ethical ideas and sanctions, all in their relation to the history of the period. The course should therefore give to the students a valuable knowledge of the background out of which Jesus came and a clearer understanding of his categories of thought.

Open to students who have completed courses 101 and 102. Three hours a week for the first semester.

202. THE LIFE OF CHRIST. The aim of this course will be (1) to study the environment of Christ in the government, institutions, manner of life, ideals, and literature of the Jewish people of his time; (2) to follow the unfolding of his life from the historical point of view; (3) to study the teachings of Christ: (a) in their historical connections as far as possible; (b) topically; (4) to become acquainted with the leading problems regarding the person and work of Christ, with different points of view and with the best literature on the subject.

Open to students who have completed courses 101 and 102. Three hours a week either semester.

MISS KENDRICK, MISS STREIBERT, MISS THOMPSON, MR. WELLMAN.

203. ELEMENTARY HEBREW. The elements of Hebrew grammar, with practice in translation and the memorizing of a vocabulary. Reading of selections from the Old Testament. At the end of the course the student should be able to read simple Hebrew and to use the language in the study of the Old Testament.

Open to juniors and seniors. Three hours a week for a year. MR. BAILEY.

204. THE APOSTOLIC AGE. It is the purpose of this course to offer studies in the essential teachings of Christianity as represented by the several New Testament writers outside of the authors of the Synoptic Gospels. There will be included such historical study of New Testament times and such presentation of the questions connected with New Testament Introduction as are necessary to make intelligible the development of Christian thought.

Open to students who have completed course 202. Three hours a week for the second semester.

MISS KENDRICK, MISS THOMPSON, MR. WELLMAN.

205. GREEK TESTAMENT. TEXT STUDY OF THE SYNOPTIC GOSPELS.

Open to students who have completed courses 101 and 102, and who have met the three unit admission requirement in Greek or have taken Greek 101 in college. Three hours a week for the first semester.

MISS KENDRICK.

206. GREEK TESTAMENT. TEXT STUDY OF OTHER NEW TESTAMENT BOOKS.

Open to students who have completed course 205. Three hours a week for the second semester.

MISS KENDRICK.

301. HISTORY OF RELIGIONS. Introductory study of primitive religions followed by an outline comparative study of the rise and development of the leading historic faiths.

Open to students who have completed the required courses in Biblical History. Three hours a week for a year.

First semester, MISS THOMPSON.

Second semester, MR. WELLMAN.

302. INTERPRETATIONS OF CHRISTIANITY. The aim of this course will be to trace in the devotional and controversial literature of certain of the most important periods of the Christian Church, from the beginning to the present day, varying conceptions of the essentials of Christianity, to consider the effect upon these conceptions of some of the most important currents of thought of the period studied and to make constant comparison with New Testament religion.

Open to seniors. Three hours a week for a year.

MISS KENDRICK.

303. SECOND YEAR HEBREW.

Open to students who have completed course 203. Three hours a week for a year.

MISS SMITH.

BOTANY

PROFESSORS : MARGARET CLAY FERGUSON, PH.D. (CHAIRMAN.)

HOWARD EDWARD PULLING, PH.D.

ASSOCIATE PROFESSORS : LAETITIA MORRIS SNOW, PH.D.

MARY CAMPBELL BLISS, PH.D.

ALICE MARIA OTTLEY, PH.D.

CURATOR OF HERBARIUM.

ASSISTANT PROFESSORS : HELEN ISABEL DAVIS, B.A.

MARY LOUISE SAWYER, PH.D.

INSTRUCTORS : HELEN STILLWELL THOMAS, M.A.

GRACE ELIZABETH HOWARD, PH.D.,

CURATOR OF MUSEUM.

ASSISTANTS : GERTRUDE COLEMAN SEELYE, B.A.

FRANCES LOUISE GRAVES, B.A.

RACHEL SCHREINER, B.A.

SECRETARY AND CUSTODIAN : ELISABETH GRIFFIN, B.A.

GRADUATE ASSISTANT : ELEANOR MACALLISTER TAYLOR, B.A.

101. PLANT STUDIES. This course is designed to bring the student into sympathy with the plant world, to cultivate the power of careful

observation, to give a knowledge of the fundamental principles of plant life and plant breeding. The course is developed on purely scientific lines, but, at the same time, it seeks so to relate our study of plants to all life as to give the student that familiar and intimate acquaintance with her living environment which makes for the broadest culture of to-day. Lectures are accompanied by studies in the laboratory and in the field. As a basis for acquaintance with the nature and work of plants, the structure and development of plants are studied from seed germination to fruit formation, and the more simple physiological responses are investigated. The course has an "Outdoor Laboratory" where each student is responsible for a definite plot of land which she plants in early spring and studies throughout the season. Students are trained to know the herbaceous plants in their spring condition, to recognize the early flowers, and to know our common trees both in their winter and in their summer aspect.

Open to freshmen, sophomores and juniors. Three hours a week for a year.

MISS FERGUSON, MISS BLISS, MISS SAWYER,
MISS THOMAS, MISS HOWARD.

201. EVOLUTION OF PLANTS. This course seeks to give a general survey of the plant kingdom by means of the study of representative plants of the various phyla. The study of these plants is supplemented by readings and discussions of the general principles and theories of evolution. There will be field trips for the purpose of studying plants in their natural habitats and securing experience in the technique of collecting and pressing plant material.

Open to students who have completed course 101 or its equivalent and to juniors and seniors without prerequisite. Three hours a week for a semester; offered in both semesters.

MISS BLISS, MISS OTTLEY.

202. ELEMENTARY PHYSIOLOGY. A study of the growth and development of seedlings and mature plants, including flowering and seed formation, from the standpoint of the principal processes concerned and the chief influences of the environment upon them. In general, the plant is considered from the biological point of view as a responsive and self-adjusting mechanism; details of the chemical and physical reactions involved receive only superficial treatment.

Open to students who have completed course 101 or its equivalent and to juniors and seniors without prerequisite. Three hours a week for a semester; offered in both semesters.

MR. PULLING.

203. TAXONOMY AND GEOGRAPHICAL DISTRIBUTION OF THE SPERMATOPHYTES. This course aims to give the student acquaintance with the Seed-plants of our local flora. Special attention is given to the principles underlying the natural classifications and relationships of the

different families, to the historical development of taxonomy from the early herbalists to the present day, and to a general consideration of the factors which have been operative in determining the present geographical distribution of higher plants. In so far as possible the work will be carried on in the field.

Open to students who have completed course 101 or 201 or 202. Three hours a week for a semester; offered in both semesters. MISS OTTLEY.

204. GARDEN PLANTS. This course gives an opportunity for a scientific study of garden plants, their classification, structure, ecology, and physiology, as a basis for their use under various cultural conditions. The lectures are accompanied by laboratory practice in the application of the principles of propagation, nutrition, and general culture of plants, including their requirements of soil, moisture, light, heat, etc., both out of doors and in the greenhouse. Greenhouse management is taken up, and some of the special problems of school gardening are considered. The field work is a study not only of the cultivation of plants but also of the natural plant societies, and the artistic value of the various plant forms, textures, color and flower effects as elements of design.

Open to juniors and seniors who have completed course 201 or its equivalent. Three hours a week for a semester; offered in both semesters. MISS DAVIS.

205. BACTERIOLOGY IN RELATION TO DAILY LIFE. A general survey of the field of bacteriology. The course aims to give the student an intelligent appreciation of what bacteria are and what they do. It includes a brief history of the science and a consideration of the relation of bacteria to medicine, public health and agriculture. It is designed as a general culture course and is not intended for those who desire a technical knowledge of the subject. The course consists chiefly of lectures, supplemented by laboratory work. It does not count as part of the science requirement.

Open to juniors who have completed one year of either Botany, Chemistry or Zoology, and to seniors without prerequisite. Three hours a week for the second semester. MISS SNOW.

206. THE PLANT CELL. (Not given in 1923-24.) A study of the plant cell from the standpoint of its structure and behavior in heredity.

Open to juniors and seniors who have completed in college one full course in Botany or Geology or Zoology. Three hours a week for the first semester. MISS FERGUSON, MISS OTTLEY.

301. COMPARATIVE MORPHOLOGY AND TAXONOMY OF THE ALGÆ, LIVERWORTS, AND MOSSES. (Not offered in 1923-24.) This course aims to give the student facility in the determination of Algæ, Liverworts,

and Mosses, and also considers the fundamental problems underlying their development and evolution.

Open to juniors and seniors who have completed two of the following courses: 201, 202, 203. Three hours a week for the first semester.

302. COMPARATIVE MORPHOLOGY OF THE FERNS, GYMNOSPERMS, AND ANGIOSPERMS. (Not offered in 1923-24.) This course considers the origin, development, and structure of vascular plants from the standpoint of evolution. Special attention is placed on tracing the steps in the development of vegetative and reproductive organs, and on a consideration of the homologies of sporogenous, reproductive, and embryonal parts. The genetic relationships of plants, both fossil and living, are carefully considered. Students will become acquainted with the technique of plant histology and embryology by preparing a considerable proportion of the microscopic slides used in the class room.

Open to juniors and seniors who have completed course 301 or 201 with 202 or 203. Three hours a week for the second semester.

MISS FERGUSON

303. EVOLUTION OF PLANT TISSUES. A detailed comparative study of the tissues of the lower and higher vascular plants, both fossil and living, from the standpoint of evolution. Special emphasis is laid on the origin and development of the elements of the fibro-vascular tissue and their distribution in root and stem. A brief consideration will be given to the origin and structure of coal, involving the special technique of hard tissues.

Open to juniors and seniors who have completed courses 201 and 202 or 203. Three hours a week for the second semester. MISS BLISS.

304. PATHOLOGY OF THE HIGHER PLANTS. (Not offered in 1923-24.) A general course on the diseases of plants. The structure, pathological processes and effects of representative fungi on plants of either economic or ornamental value are studied. Modern methods of combating plant diseases are briefly considered from the standpoint of the principles that underlie them.

Open to juniors and seniors who have completed courses 201 and 202 or 203. Three hours a week for the second semester.

305. ECOLOGY. A consideration of the natural grouping of plants on the earth and the principles underlying these plant associations. The course is divided into a study of (1) plant formations which have arisen in response to climatic conditions, and (2) local plant associations which have resulted from physiographic changes. This study includes a consideration of the various modifications of plant structure found under

different environmental conditions. In the spring term an average of one appointment a week will be devoted to field work.

Open to juniors and seniors who have completed courses 201 and 202 or 203. Three hours a week for the first semester. MISS SNOW.

306. PLANT PHYSIOLOGY. Experiments, lectures, discussions, and readings designed to acquaint the student with the higher plants as working organisms. The experiments embody problems in, to a greater extent than demonstrations of, the fundamental activities of the higher plants in relation to their environment. It is planned that increased precision in laboratory manipulation shall keep pace with the student's growing knowledge of physiological methods.

Open to juniors and seniors who have completed six year-hours of Botany in college and who have completed or are taking a year of either Chemistry or Physics. The prerequisite in Botany must include courses 201 and 202 or 203. Three hours a week for a year. MR. PULLING.

307. CYTOLOGY AND GENETICS. Studies in the structure of the cell; the phenomena of cell division; the constitution of the reproductive cells with special reference to the theories of heredity and evolution. The relation between definite cell structures and visible plant characteristics will be determined by a study of their inheritance in cross breeding and in mutation. At the beginning of the year each student will be assigned a practical problem in plant breeding as a basis for the study of the behavior of pure lines in hybridization and the origin and transmission of characters.

Open to seniors (and by special permission to juniors) who have completed six year-hours of Botany in college. This prerequisite must include either course 302 or 201 with 202 or 203. Three hours a week for a year.

MISS FERGUSON, MISS SEELYE.

308. GENERAL BACTERIOLOGY. It is the aim of the course to give the student a knowledge of the morphology and physiology of micro-organisms with special emphasis upon the principles underlying fermentation, preservation of foods, methods of sterilization, antiseptics, etc. The student will familiarize herself with methods of staining, plating, making of transfers, etc. This special technique will be used during the second semester in the study of selected problems, such as the milk and water supplies, sewage disposal and disease. Although the course is designed especially for those students who contemplate a continuance of technical work, a large proportion of informational material is combined with the study of standard methods.

Open to juniors and seniors who have had one year of Chemistry and either one year of Botany or Zoology, or a second year of Chemistry. Three hours a week for the year. MISS SNOW, MISS SCHREINER.

309. **LANDSCAPE GARDENING.** The work of this course continues the study of ornamental plants begun in course 204, placing special emphasis upon their use in landscape gardening. The development of the great historical styles in garden design, and the fundamental principles governing art are studied as a basis for the appreciation of modern landscape architecture and its function in the advancement of civilization. The problems of city planning are discussed from the standpoint of the æsthetic and recreational requirements in both urban and rural communities. The laboratory practice gives training in methods of developing the landscape plan as adapted to the small estate. This course is intended primarily to give an intelligent appreciation of landscape gardening as a fine art.

Open to students who have completed course 204, and by special permission to seniors who are taking 204. Three hours a week for the first semester. MISS DAVIS.

310. **LANDSCAPE DESIGN.** This course continues the study of principles introduced in course 309, but lays more emphasis upon specific methods of carrying out these principles with landscape materials. A summary of the fundamentals of good construction is also included. The work is conducted by lecture and discussion, and by laboratory practice in planning. Trips are taken as often as possible for observation and study of actual examples of the art.

Open to students who have completed course 309. Three hours a week for the second semester. MISS DAVIS.

321. **SEMINAR.** Reading and discussion of current botanical literature, reports of problems under investigation, studies in the historical development of some phase of botanical knowledge.

Required of graduate students, and open to seniors by permission of the department. One hour a week for a year. MISS BLISS, MISS SAWYER.

322. **PLANT PROBLEMS.** This is primarily a laboratory course, but a definite weekly appointment is made with each student for a report of the papers read and of the progress of her study; a final paper embodying the results of her investigations is required. A special problem in one of the following subjects is assigned to each student: (1) Embryology and Genetics; mitosis, sporogenesis, spermatogenesis, oogenesis, fertilization, inheritance, plant breeding. (2) Physiology and Experimental Morphology; nutrition, growth, development, effects of stimuli on cell activities, structure variations in relation to environment. (3) Comparative Morphology and Taxonomy of Vascular and Non-vascular Plants; advanced studies in plant anatomy.

Open to graduate students and, by permission of the department, to seniors. Three or six hours a week for a year.

MISS FERGUSON, MR. PULLING, MISS SNOW,
MISS BLISS, MISS OTTLEY, MISS SAWYER.

CHEMISTRY

ASSOCIATE PROFESSORS : CHARLOTTE ALMIRA BRAGG, B.S. (CHAIRMAN.)
HELEN SOMERSBY FRENCH,² PH.D.
MARY AMERMAN GRIGGS, PH.D.
RUTH JOHNSTIN, M.A.
INSTRUCTOR : MARION ELMIRA WARNER, M.A.
ASSISTANT : OLIVE WATKINS, B.A.
LABORATORY ASSISTANTS : RUTH KRAUSKOPF, B.A.
RUTH ANITA WEGNER, B.A.

101. ELEMENTARY CHEMISTRY. LECTURES AND LABORATORY WORK. Course 101 is for beginners in Chemistry, and is intended to familiarize the student with the important properties of the elements and their compounds, with their modes of preparation, and with such tests as shall lead up to the study of systematic Qualitative Analysis; also to present the laws governing chemical reactions, the meaning of chemical equations, and the more recent theories adopted in the science.

Open to students who do not offer Chemistry for admission. Three hours a week for a year.

MISS BRAGG, MISS WARNER, MISS KRAUSKOPF.

102. GENERAL CHEMISTRY. This course is intended for those students who have offered Chemistry for entrance, and who plan to major in Chemistry in college. It aims to give a brief intensive review of the preparatory work in Chemistry, with such additional study, particularly of the metallic elements and the theories of solutions, as shall prepare the students for the grade II courses in the department.

Open to students who have completed the admission requirement or its equivalent, and who are electing course 201. Three hours a week for the first semester.

MISS WARNER, MISS KRAUSKOPF.

201. QUALITATIVE ANALYSIS. A system of analysis for the detection of the common metals and acid radicals with the application of theoretical principles to the reactions involved. The laboratory work includes practice in the solution and analysis of substances unknown to the student.

Open to students who have completed course 101 or 102. Three hours a week for a semester; offered in both semesters.

MISS GRIGGS, MISS WATKINS.

202. QUANTITATIVE ANALYSIS. This course is designed to give training in gravimetric and volumetric analysis. The theories discussed in course 201 are applied to the work of the laboratory, and problems related to the work are included in the class discussions.

Open to students who have completed course 201. Three hours a week for a semester; offered in both semesters.

MISS GRIGGS, MISS WATKINS.

²Absent on Sabbatical leave.

204. CHEMISTRY IN ITS APPLICATIONS TO DAILY LIFE. (Not offered in 1923-24.)

Open to students who have completed course 101 or 102. Three hours a week for the first semester.

205. QUANTITATIVE ANALYSIS. A continuation of course 202.

Open to students who have completed course 202. Three hours a week for the second semester.

MISS GRIGGS, MISS WATKINS.

301. ORGANIC CHEMISTRY, WITH LABORATORY WORK IN ORGANIC PREPARATIONS.

Open to juniors and seniors who have completed or are taking courses 201 and 202 and, by special permission, to seniors who have completed courses 102 and 201, or 101. Three hours a week for a year.

MISS JOHNSTIN, MISS WEGNER.

302. ADVANCED LABORATORY COURSE IN ORGANIC CHEMISTRY.

Open to students who have completed course 301. Three hours a week for the first semester.

MISS JOHNSTIN.

303. QUANTITATIVE ANALYSIS. (Not given in 1923-24.) This course includes the complete quantitative analysis of some more complex inorganic substances.

Open to juniors and seniors who have completed courses 201 and 202. Three hours a week for the first semester.

MISS GRIGGS.

304. CHEMISTRY OF FOOD.

Open to students who have completed courses 202 and 301. Three hours a week for the first semester.

MISS JOHNSTIN.

305. THEORETICAL AND PHYSICAL CHEMISTRY.

Open to seniors who have completed or are taking course 301 and have completed or are taking a year of college Physics. Three hours a week for the second semester.

MISS JOHNSTIN.

306. LABORATORY WORK IN PHYSICAL CHEMISTRY.

Open to seniors and graduates who have completed or are taking course 305. Three hours a week for the second semester.

MISS JOHNSTIN.

307. INORGANIC CHEMISTRY. (Not given in 1923-24.) This course makes use of the laboratory work of the courses taken in preceding years.

Open to students who have completed courses 202 and 301. Three hours a week for the second semester.

MISS BRAGG.

308. QUALITATIVE ANALYSIS. (Not given in 1923-24.)

Open to juniors and seniors who have completed courses 201 and 202. Three hours a week for the second semester.

MISS GRIGGS.

ECONOMICS AND SOCIOLOGY

PROFESSORS : JANE ISABEL NEWELL, PH.D. (CHAIRMAN.)
HENRY RAYMOND MUSSEY, PH.D.
ASSOCIATE PROFESSOR : ELIZABETH DONNAN, B.A.
INSTRUCTORS : DAVIDSON RANKIN MCBRIDE, B.A.
LAWRENCE SMITH, M.A.
REDVERS OPIE, B. COM.

Economics

101. INTRODUCTION TO ECONOMICS AND SOCIOLOGY. A descriptive course setting forth the evolution of industry, the outstanding features of present industrial society, the social problems involved in the present distribution of wealth, and the programs and agencies attempting to deal with these problems.

Open to sophomores, juniors, and seniors. Three hours a week for a year.
MR. MUSSEY, MISS DONNAN, MR. MCBRIDE,
MR. SMITH, MR. OPIE.

201. PRINCIPLES OF ECONOMICS. A study of current economic thought centering about the theories of value and of distribution. This course is prerequisite to all grade III courses in Economics.

Open to students who have completed or are taking course 101, and by special permission to juniors and seniors who have completed two full courses in History or Government. Three hours a week for the first semester.
MISS DONNAN.

203. HISTORY OF ECONOMIC THEORY. A study of the origin and development of economic principles and policies, with special emphasis on selected controversial questions.

Open to students who have completed course 201. Three hours a week for the second semester.
MISS DONNAN.

204. ECONOMIC HISTORY OF THE UNITED STATES. A study of our national development in its material and social aspects, with special emphasis upon the western movement in the United States and the growth of business combinations.

Open to students who have completed or are taking course 101. Three hours a week for the second semester.
MISS DONNAN.

301. SOCIALISM AND SOCIAL REFORM. A critical study of certain economic and social theories—such as anarchism, syndicalism, co-operation, single tax, and socialism.

Open to juniors and seniors who have completed course 308. Three hours a week for the second semester.
MR. MUSSEY.

302. ECONOMIC HISTORY OF ENGLAND. This course will include a survey of the chief stages in English economic history, but especial attention will be devoted to the period since the industrial revolution.

Open to juniors and seniors who have completed course 201. Three hours a week for the second semester.
MR. SMITH.

305. RAILROADS: RATES AND REGULATION. (Not given in 1923-24.) A brief survey of some of the fiscal, economic, and social problems arising from our modern means of transportation. Among the topics discussed will be the following: history of American railroad construction; railway charters; powers of directors and stockholders; nature of railway securities; financing of construction and development work; inter-company relations and the construction of systems; railroad traffic and rates; history of American railway regulation; the problems and possibilities of government operation.

Open to juniors and seniors who have completed course 306. Three hours a week for the second semester. MISS DONNAN.

306. CORPORATE ORGANIZATION AND CONTROL. The development of large scale production and the growth of corporate business; characteristic forms of industrial combination; state and federal regulatory legislation and judicial decisions relating thereto; alleged advantages and evils of industrial combination; proposed remedies for the latter.

Open to juniors and seniors who have completed or are taking course 201. Three hours a week for the first semester. MISS DONNAN.

307. INDUSTRIAL AND SOCIAL LEGISLATION. A study of industrial and social conditions and their regulation by means of legislation.

Open to juniors and seniors who have completed course 201 or 202. Three hours a week for the second semester. MR. MCBRIDE.

308. THE MODERN LABOR MOVEMENT. A study of modern industrial unrest with special attention to the viewpoint of the employer and that of organized labor.

Open to juniors and seniors who have completed course 201 and any other grade II course in Economics, Sociology, or History. Three hours a week for the first semester. MR. MUSSEY.

309. MONEY AND BANKING. The course deals mainly with the principles of money and banking, but it is also designed to give the student some acquaintance with the history and chief characteristics of typical modern systems of banking.

Open to juniors and seniors who have completed or are taking course 201. Three hours a week for the first semester. MR. SMITH.

310. PUBLIC FINANCE. (Not offered in 1923-24.) This course will deal with the principles of taxation with special reference to conditions in the United States. Each student will be required to make a study of the tax system of some one state or municipality.

Open to juniors and seniors who have completed or are taking course 201. Three hours a week for the first semester. MR. MUSSEY

313. SEMINAR: SELECTED TOPICS IN THE HISTORY OF AMERICAN ECONOMIC AND SOCIAL MOVEMENTS AND THEORIES. (Not offered in 1923-24.) The aim of this course is to train students in methods of research in subjects for the understanding of which both history and economics are essential. Such topics as the following will be selected for intensive study in different years: the development of theories and methods of banking in the United States; theories of wages and the labor movement; history of philosophies of social and economic progress in the United States; the woman movement and its economic basis; theories of money and the monetary history of the United States.

Open to seniors who have completed course 201 and either course 204 or History 301. Three hours a week for the second semester.

MISS DONNAN, MISS NEWELL.

314. FOREIGN TRADE AND INVESTMENT. The principles of international trade in their present application to the United States; the new investment and trade position; the relation of shipping and foreign trade to American industrial development, labor conditions, tariff legislation, imperialism, colonies, and foreign policy.

Open to juniors and seniors who have completed course 309. Three hours a week for the second semester.

MR. MUSSEY.

Sociology

202. PRINCIPLES OF SOCIOLOGY I. An introduction to the study of association:—its underlying forces; its principal processes, *e. g.*, social suggestion, socialization, domination, adaptation; its typical products, *e. g.*, fashion, convention, custom, folkways, institutions, social order.

Open to juniors and seniors who have completed or are taking course 101 and by special permission to juniors and seniors who have completed or are taking a second course in History or Government. Three hours a week for the first semester.

MISS NEWELL, MR. MCBRIDE.

206. PRINCIPLES OF SOCIOLOGY II. (Not offered in 1923-24.) A study of the geographic, biologic, psychologic, and technic factors conditioning societal evolution; with special emphasis on theories of progress. The course aims to acquaint the student with some of the more notable of modern contributions to sociological and anthropological theory by lectures and readings on the works of Comte, Spencer, Ratzel, Galton, Ward, Ross, Boas, Ripley, Osborne, Patten, Durkheim, Tarde, Loria, Wallas, Veblen, and Westermarck.

Open to juniors and seniors who have completed course 202. Three hours a week for the second semester.

MISS NEWELL.

208. SOCIAL ECONOMY. A study of the causes, characteristics, and social control of dependency and crime.

Open to juniors and seniors who have completed course 202. Three hours a week for the second semester.

MISS NEWELL.

304. MUNICIPAL SOCIOLOGY. The subject of this course is the American city of to-day; its organization and its functioning to meet normal social needs. It includes such topics as housing, city planning, sanitation, recreation, education.

Open to students who have completed or are taking course 202 and any other grade II course in Sociology, Economics, History, or Government. Three hours a week for the first semester. MR. McBRIDE.

311. SOCIAL AND ECONOMIC INVESTIGATION. A study of current methods of collecting, interpreting, and presenting statistical material relating to social and economic problems. The course seeks to acquaint the student with principles and methods of record-keeping and filing; tabulation and graphic representation of recorded facts; the making and use of social surveys. Sample case-records, reports, and surveys are critically examined and a simple investigation is conducted by the class.

Open to juniors and seniors who have completed or are taking course 201 or 202. Three hours a week for a year. In 1923-24 the second semester will be open as a semester course to juniors and seniors who have completed Mathematics 204 and either Economics 201 or 202.

MR. OPIE.

312. THE FAMILY. A study of the origin, evolution, and current problems of the family as a social institution, emphasizing throughout the social and legal status of women as members of the family. The course includes the study of such topics as the theories of the origin of marriage; systems of kinship; the patriarchal family of the Hebrews, Greeks, and Romans; the development of ecclesiastical control over marriage; the rise of civil marriage in the modern state; the changing scope of marital and paternal authority over the persons and property rights of members of the family; the influence of the feminist movement; the problem of divorce; marriage-rates and birth-rates and their social implications.

Open to seniors who have completed course 202 and any other grade II course in Sociology, Economics, or History. Three hours a week for a year. MISS NEWELL.

315. IMMIGRATION. A study of immigration into the United States, the elements represented, and their geographical distribution; the social, political, and economic influence of our foreign populations; the history of restrictive legislation, and the arrangements thus far provided for the reception and care of aliens. As far as practicable each student will be given an opportunity to see the process of inspection of immigrants.

Open to seniors (and by special permission to juniors) who have completed or are taking course 202 and any other grade II course in Sociology, Economics, or History. Three hours a week for the second semester.

MR. McBRIDE.

EDUCATION

PROFESSORS : ARTHUR ORLO NORTON, M.A. (CHAIRMAN.)
ANNA JANE McKEAG, PH.D., LL.D.

LECTURERS : MATILDA REMY.

EDMUND MORRIS FERGUSON,⁷ M.A., D.D.

INSTRUCTOR : MARJORIE LOUISE HENRY, M.A.,

INSTRUCTOR IN FRENCH.

ASSISTANT : CHARLES STURTEVANT MOORE, M.A.

GRADUATE ASSISTANT : JENNETTE ROWE GRUENER, B.A.

The Department of Education offers both undergraduate and graduate courses. Six hours of work may be counted toward the B.A. degree. Full work for the M.A. degree is offered.

201. MODERN EDUCATION: PRINCIPLES AND INSTITUTIONS. This course is organized to meet the needs not only of prospective teachers but also of all who are interested in the intelligent direction of education as a phase of civic or social service. Its purpose is to give a general survey of the practices, theories, and problems of modern education. The work of the course is illustrated throughout the year by visits to assigned schools for the observation of children and of class-room practice, and by examples of school work. Throughout this course the applications of Psychology to Education are considered and discussed.

Open to juniors who have completed or who are taking the required course in Philosophy, and to seniors. Three hours a week for a year.

MR. NORTON, MISS McKEAG.

202. HISTORY OF EDUCATION. From the point of view of this course modern education appears as the outcome of a long series of historic events, the effects of which are visible in the ideals, studies, modes of teaching, and organization of our present schools, colleges, and universities. The purpose of the year's work is to study in some detail the most important events in the history of European and American education, and their effects on the present course of educational affairs. The lectures are constantly illustrated by original manuscripts, facsimiles, early editions of noted text-books, and similar historical documents, by translations from the sources, and by numerous lantern slides.

Open to juniors who have completed or are taking the required course in Philosophy, and to seniors. Three hours a week for a year.

MR. NORTON.

301. SECONDARY EDUCATION. The history and principles of secondary education, with special reference to the high schools of the United States. A study will be made of approved methods of teaching English, foreign languages, sciences, mathematics, and history in high schools. Opportunity will be given for observation of the work of specially successful high school teachers in the subject which the student expects to teach. In connection with this course the department of Education requires from graduates a semester of systematic practice teaching in a high

⁷Appointed for the second semester only.

school, to be done as independent work, under the guidance of the department and with the co-operation of the principal of the high school. Practice in teaching is not open to undergraduates.

Open by permission to seniors who have completed a full course in Education, and to graduates. Three hours a week for a year. Students who take course 303 are permitted to count the first semester of 301 as a semester course. MISS McKEAG.

302. PRINCIPLES AND PROBLEMS OF RELIGIOUS EDUCATION. The aims of religious education in the light of the fundamental characteristics and present tendencies of Christianity. The religious development of the individual. The selection and use of Biblical material for different ages. The Sunday school: its organization, curricula, and methods of teaching; its relation to the home.

Open to seniors who have completed Education 201. Three hours a week for the second semester. MR. FERGUSSON.

303. PRINCIPLES AND METHODS OF TEACHING FRENCH IN SECONDARY SCHOOLS. The aim of this course is to teach the students how to impart to their pupils, in the shortest possible time, a speaking, understanding, reading, and writing knowledge of French. After a survey of the general difficulties arising from English habits of thought and of expression already formed, the instructor will deal with the several aspects of modern language work, such as the teaching of vocabulary, of grammar, of composition, and of translation; the selection and use of books, the correction and elimination of errors, the equipment of the teacher and of her department in the high school.

Open to seniors who have completed or are taking French 305, and who have also completed Education 201. Students who take this course may also take the first semester of Education 301 as a semester course. Three hours a week for the second semester. MISS HENRY.

321. PROBLEMS IN EDUCATION. (Not offered in 1923-24.) The subject-matter of this course will vary from year to year in accordance with the equipment and needs of students. The topics for study will be chosen from the field of experimental or statistical investigation or from that of the general science of education.

Open to graduates who have completed a full course in Education. Three hours a week for a year. MISS McKEAG.

322. THE HISTORY, THEORY, AND PROBLEMS OF THE KINDERGARTEN. The reconstruction of educational theories in the eighteenth and early nineteenth centuries. The relation of this reconstruction to the work of Froebel. The origins and history of the kindergarten movement in Europe and America. Exposition and criticism of the theory of kindergarten practice. Other forms of sub-primary education: the Waverley

plan, the Montessori methods; their relation to kindergarten practice. The kindergarten and the primary school.

Open to seniors and to graduates who have completed Philosophy 101.102, or an equivalent, and one full course in Education. (Graduates must ordinarily take courses 322 and 323 together.) Three hours a week for a year.

MISS REMY.

323. KINDERGARTEN PRACTICE: MATERIALS, METHODS, EXERCISES. TECHNIQUE. (Not given in 1923-24.) Course 323 deals in general with practical applications of the theory given in course 322. It includes on the one hand a detailed study of the materials, devices, exercises, and methods of the kindergarten, and on the other, extensive observation of their use, with practice in teaching.

NOTE.—Graduates must ordinarily take courses 322 and 323 together. They will occupy two-thirds of the student's time for the year. Students who are preparing to conduct kindergartens or kindergarten training classes are required to take a third course, usually in Education, to be determined on consultation with the chairman of the Department of Education. Ability to play on the piano the music of kindergarten songs and games is a prerequisite of these courses.

Open to graduates who have completed Philosophy 101.102, or an equivalent, and one full course in Education (see note above). Four hours a week for a year.

MISS REMY.

324. ELEMENTARY EDUCATION: HISTORY, THEORY, PRACTICE, AND PROBLEMS. (Not offered in 1923-24.) Course 324 includes a brief survey of the history of elementary education in the United States, a detailed study of present elementary school practice, a critical discussion of the principles which underlie that practice, and the investigation of selected problems in elementary education. The purpose of the course is to give to each student a knowledge of existing conditions and problems, some facility in handling the tools and methods of practical research in this field, and ability to formulate her views as to the ideas, scope, and work of the elementary schools.

Open to graduates who have completed Philosophy 101, or an equivalent, and one full course in Education. Three hours a week for a year.

325. HISTORY OF EDUCATION. (Not given in 1923-24.) This course covers the same periods in the history of education as course 202, but with additional reading, critical examination of the materials, and a detailed study of one or more topics from the sources. It is intended for graduate students who have had no general course in the history of education.

Open to graduates who have completed a full course in Education. Three hours a week for a year.

MR. NORTON.

ENGLISH

I. English Literature

- PROFESSORS : KATHARINE LEE BATES, M.A., LITT.D.
 VIDA DUTTON SCUDDER, M.A., L.H.D.
 MARGARET POLLOCK SHERWOOD, PH.D., L.H.D.
 ALICE VINTON WAITE, M.A.
 MARTHA HALE SHACKFORD, PH.D.
 LAURA EMMA LOCKWOOD, PH.D. (CHAIRMAN.)
- ASSOCIATE PROFESSORS : CHARLES LOWELL YOUNG, B.A.
 MARTHA PIKE CONANT, PH.D.
 ALICE IDA PERRY WOOD, PH.D.
 LAURA ALANDIS HIBBARD, PH.D.
 AGNES FRANCES PERKINS, M.A.
 HELEN SARD HUGHES, PH.D.
- ASSISTANT PROFESSORS : ELIZABETH WHEELER MANWARING,³ B.A.
 ANNIE KIMBALL TUELL, M.A.
 BERTHA MONICA STEARNS, M.A.
- ASSISTANT : HELEN HOOVEN SANTMYER, B.A.

101. OUTLINE HISTORY OF ENGLISH LITERATURE. The course traces the essential outlines of English literary history, presents the leading types of prose and poetry, and gives training in critical appreciation. The work is conducted by lectures and by studies of selected masterpieces.

Open to freshmen, sophomores, and juniors. Three hours a week for a year.

MISS CONANT, MISS TUELL, MISS PERKINS,
 MISS HUGHES, MISS STEARNS.

201. ENGLISH MASTERPIECES. The course is intended to develop a sympathetic appreciation of literature through the study of chosen masterpieces. The work includes readings from Shakespeare, Scott, Jane Austen, Thackeray, Carlyle, Arnold, Ruskin, Wordsworth, Browning; ballads; short stories; and if time permits, some recent verse.

Open only to seniors who have completed no full course in the department, or course 101 only. Three hours a week for a year.

MISS CONANT.

202. AMERICAN LITERATURE. The course attempts to give a comprehensive account of American literature. It studies the Colonial and Revolutionary sources of American idealism, the rise of imaginative literature in the Middle States, the florescence of Puritan culture in New England, the achievement of democratic nationality in the mid-nineteenth century, the literature of the country at large after the Civil War, and contemporary literature, especially the new poetry.

Open to students, except freshmen, who have completed or are taking a grade I course, and to all seniors. Three hours a week for a year.

MR. YOUNG.

³Absent on leave.

204. MILTON. The primary object of the course is the critical study of Milton as a master in lyric, epic, and dramatic poetry, and as a writer of notable prose. The character and genius of the poet are considered as influenced by the political and religious conflict of the times. Special emphasis is placed on the comparison of Milton's work with that of other great writers who have used the same literary forms.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for a year. MISS LOCKWOOD.

205. THE BRITISH BALLAD. (Not offered in 1923-24.) The course studies the English and Scottish popular ballad and the modern literary ballad. Special attention will be given to folk lore elements in the ballad and to the significance of the recent revival of interest in folk dance and story.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for the first semester.

MISS HIBBARD.

206. THE ENGLISH NOVEL: THE RISE OF THE TYPES. The course deals with selected stages in the progress of the English novel, placing special importance upon its development in Richardson, Fielding, Smollett, and others. Its main emphasis is upon the realistic novel; but it makes some study of types of romance from Sidney to Scott.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for the second semester.

MISS TUELL.

207. ARTHURIAN ROMANCE. The course begins with a study of those legends in ancient Celtic literature which influenced later Arthurian story, traces the historical development of Arthurian tradition through the mediæval chronicles, the French and the English verse romances, then centers in the study of the sources and significance of Malory's *Morte Darthur*.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for the first semester.

MISS HIBBARD.

208. CHAUCER. The course centers in a study of Chaucer's life and times, of his development as a poet, and the influence upon him of his chief Latin, French, and Italian sources.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for the second semester.

MISS HIBBARD.

209. **VERSIFICATION.** (Not offered in 1923-24.) The course has as its object in general such study of the principles of English versification as may give to the student of literature a keener appreciation of poetic expression; and in particular, for those interested in writing verse, opportunity for experiment and criticism.

Open to students, except freshmen, who have completed or are taking one full course in the department of English Literature, and also to those majoring in English Composition. One hour a week for a year.

MISS MANWARING.

301. **SOCIAL IDEALS IN ENGLISH LETTERS.** The course studies the expression in English literature of social compunction, social criticism, and social ideals. It covers a swift survey from the time of *Piers Plowman* to that of Blake, and a closer consideration of the literature of the nineteenth and twentieth centuries in its social bearing.

Open to seniors who have completed two full courses in English Literature or Economics or History, or who have completed one full course in any of these departments and are taking another course. Three hours a week for a year.

MISS SCUDDER.

302. **TENDENCIES OF TWENTIETH CENTURY POETRY.** The course proposes to point out the special significance, as related to the English tradition, of the work of certain contemporary English poets, especially those who have won distinction since 1900.

Open only to juniors and seniors who have already completed two full courses in the department. One hour a week for a year.

MISS BATES.

303. **CONTEMPORARY DRAMA.** The modern English drama is considered in relation to parallel European drama.

Open to students who have completed or are taking a full course of grade III in the department. Two hours a week for a year.

MISS WAITE.

304. **DEVELOPMENT OF ENGLISH DRAMA.** The course traces the history of English drama from the beginnings in folk plays and the liturgy of the Church, through the Miracles and Moralities, the Elizabethan dramatists, and the comedy and tragedy of the seventeenth and the eighteenth centuries, to the final development into contemporary forms.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course, or two semester courses of grade II. Three hours a week for a year.

MISS WOOD.

305. **SHAKESPEARE: SELECTED PLAYS.** (Not offered in 1923-24.) Close study of six plays, selected to illustrate Shakespeare's earlier and later work. The course emphasizes the literary study of Shakespeare. It gives

opportunity for training in imaginative, scholarly, vital study of the text.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course or two semester courses of grade II. Three hours a week for a year. MISS CONANT.

306. VICTORIAN PROSE. The course considers, with the necessary reference to historical background, the distinctive values of Victorian prose, making a comparatively even division of time between the essay and the novel. The stress in class is laid upon Dickens, Carlyle, Newman, Thackeray, George Eliot, Ruskin, Arnold, Meredith, with briefer study of the minor novelists, and some notice of late Victorians in their contact with the present era.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course or two semester courses of grade II. Three hours a week for a year. MISS TUELL.

307. ENGLISH POETRY OF THE NINETEENTH CENTURY. The course considers the work of the great Georgian and Victorian poets in their relation to one another and to contemporary thought. Extended study is given to Wordsworth and Coleridge; Shelley and Keats; Tennyson and Browning; with briefer readings from Byron, Scott, Landor, Clough, Arnold, Rossetti, Morris, and Swinburne.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course, or two semester courses of grade II. Three hours a week for a year. MISS SHERWOOD.

308. HISTORICAL DEVELOPMENT OF ENGLISH LITERATURE. (Not offered in 1923-24.) The course proposes a study of the development of English literature from the time of *Beowulf* to the end of the Victorian age. It aims to focus attention upon successive phases of national thought and life as expressed in salient and representative books.

Open to graduates, and required of seniors who are majoring in English Literature and have not had course 101 or its equivalent. Three hours a week for a year. MISS LOCKWOOD.

309. SHAKESPEARE. This course attempts to trace the development of Shakespeare's thought and art. All of the plays and the sonnets will be read and discussed; a few selected plays will be studied closely. Material illustrating the historical and the literary background will be considered.

Open to juniors and seniors who have completed course 101, and have completed or are taking a full year course, or two semester courses, of grade II. Three hours a week for a year. MISS SHACKFORD.

310. EIGHTEENTH CENTURY LITERATURE. The first semester will be devoted chiefly to the study of the writings of Addison, Steele, Swift,

Pope, and Defoe; the second semester to Dr. Johnson and his circle. The emphasis will be laid on the rise and development of satire as related to political life, on the periodical and its popularity, on literary criticism, and on the relation between the poetry and prose of the century.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course or two semester courses of grade II. Three hours a week for a year. MISS LOCKWOOD.

321. MODERN AUTHORS. Two or more authors are chosen each year for special study. In 1923-24 the choice is Wordsworth and Browning.

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Three hours a week for a year.

MISS SCUDDER.

322. ENGLISH ROMANTICISM. (Not offered in 1923-24.) A study of the Romantic Movement in England, from its beginnings in the eighteenth century, on through the work of the early nineteenth century poets. Certain phases of the relation of English to German literature and to French literature during the period of reaction are studied.

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Three hours a week for a year.

MISS SHERWOOD.

323. CRITICAL STUDIES IN ENGLISH DRAMA. The course attempts to give graduate training in literary investigation. To each student is assigned some special problem of source, authorship, or the like, which she pursues till her conclusion is reached, reporting progress from week to week in the seminar.

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Three hours a week for a year.

MISS BATES.

324. CRITICAL STUDIES IN AMERICAN LITERATURE. The course is designed for advanced work in American literature.

Open to graduates and to approved seniors who are taking a twelve-hour major in the department. Three hours a week for a year.

MR. YOUNG.

325. BEGINNINGS OF THE ENGLISH RENAISSANCE FROM CAXTON TO SHAKESPEARE. (Not given in 1923-24.) The course aims to give graduate training, and so to present the beginnings of the English Renaissance that the student may rightly estimate the achievements of the great Elizabethans.

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Three hours a week for a year.

MISS CONANT.

326. MEDIÆVAL ENGLISH LITERATURE. The course introduces students to the types of literature growing out of the social and religious move-

ments of the thirteenth and fourteenth centuries. Extended study is given to the works of Chaucer and to the problems in criticism and scholarship to which they give rise.

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Three hours a week for a year.

MISS HIBBARD.

For course in Greek Literature in English Translations see Department of Greek.

II. English Composition

PROFESSOR : SOPHIE CHANTAL HART,² M.A.

ASSOCIATE PROFESSORS : AGNES FRANCES PERKINS, M.A. (CHAIRMAN.)

JOSEPHINE HARDING BATCHELDER, M.A.

HELEN SARD HUGHES, PH.D.

ALFRED DWIGHT SHEFFIELD,³ M.A.

EMMA MARSHALL DENKINGER, PH.D.

ASSISTANT PROFESSORS : ELIZABETH WHEELER MANWARING,³ B.A.

ANNIE KIMBALL TUELL, M.A.

BERTHA MONICA STEARNS, M.A.

INSTRUCTORS : ELISABETH WILKINS THOMAS, M.A.

ELVIRA SLACK, M.A.

EDITH CHRISTINA JOHNSON, M.A.

ELEANOR BROOKS GULICK, B.A.

DOROTHY LOUD BROWN, B.A.

101†. GENERAL SURVEY. First semester: expository writing, with emphasis on structure. Weekly themes. Second semester: expository writing, critical and interpretative; description; simple narration. Fortnightly themes or their equivalent.

Required of freshmen. Three hours a week for a year.

MISS PERKINS, MISS BATCHELDER, MISS DENKINGER, MISS TUELL,
MISS STEARNS, MISS THOMAS, MISS SLACK, MISS JOHNSON,
MRS. GULICK, MRS. BROWN.

102. INTERMEDIATE COURSE IN EXPOSITORY WRITING.

Required of students who have made D grade in the second semester of course 101. Three hours a week for one semester. MISS SLACK.

201. ORAL EXPOSITION. (Not offered in 1923-24.) The analysis of contemporary subjects, and the preparation of written outlines and of speeches based upon them.

Open to sophomores and juniors who have completed course 101. Three hours a week for the first semester. MR. SHEFFIELD.

202. SPECIAL TYPES OF ORAL EXPOSITION. (Not offered in 1923-24.) This course is a continuation of course 201. The work deals with the methods of organization and presentation in group discussion.

Open to sophomores and juniors who have completed course 101. Three hours a week for the second semester. MR. SHEFFIELD.

²Absent on Sabbatical leave.

³Absent on leave.

†If a student submits papers notably deficient in English as part of her work, in any department, she will incur a condition in English Composition, whether or not she has completed the requirement in English Composition.

203. **ADVANCED EXPOSITORY WRITING.** A study of values in varied types of journalistic writing: the news story, the editorial, the book and play review, the "column," and the special article, as exemplified in some English and American newspapers. Fortnightly themes or their equivalent.

Open to sophomores and juniors who have completed course 101. Three hours a week for the first semester.

MISS BATCHELDER, MISS HUGHES, MISS STEARNS.

204. **ADVANCED EXPOSITORY WRITING.** This course is a continuation of course 203. The essay form, biography, the critical review, the sketch, the interpretative study of prose style. Fortnightly themes or their equivalent.

Open to sophomores and juniors who have completed course 101. Three hours a week for the second semester.

MISS BATCHELDER, MISS HUGHES, MISS STEARNS.

205. **DEBATE AND PUBLIC DISCUSSION.** (Not given in 1923-24.) The analysis of controversial questions for training in the application of evidence and in good argumentative technique. The second semester will include a study of the forms that debate requires when it deals with conflicting interests to be adjusted rather than with propositions to be either accepted or rejected.

Open to sophomores and juniors who have completed course 101. Three hours a week for a year.

MR. SHEFFIELD.

301. **NARRATIVE WRITING.** Four long pieces of narrative work. Study of principles and forms of narrative writing, including analysis of one novel.

Open to juniors and seniors who have completed course 101. Two hours a week for the first semester.

MISS BATCHELDER, MISS DENKINGER.

302. **SHORT THEMES.** This course is a continuation of course 301. Practice in writing briefly on many sorts of subjects to increase suppleness and precision of style, with especial consideration of diction and sentence form and rhythm. Short themes. Reading and class discussion of the theory and practice of various writers.

Open to juniors and seniors who have completed course 101. Two hours a week for the second semester.

MISS BATCHELDER, MISS DENKINGER.

303. **THE THEORY AND HISTORY OF CRITICISM.** (Not offered in 1923-24.) Lectures on the critical theory of Plato and Aristotle and on the more important English and French critics.

Open to juniors and seniors. One hour a week for a year. MISS HART.

304. ADVANCED COURSE IN ENGLISH COMPOSITION. Studies in exposition, description, and narration, with one piece of dramatization or an original play. Frequent practice in writing.

Open to seniors who have completed courses 201. 202, or 203. 204, or 205, or 301.302. Three hours a week for a year. MISS PERKINS.

III. English Language

PROFESSOR : LAURA EMMA LOCKWOOD, PH.D. (CHAIRMAN.)
 ASSOCIATE PROFESSORS : ALFRED DWIGHT SHEFFIELD,³ M.A.
 EMMA MARSHALL DENKINGER, PH.D.

301. OLD ENGLISH. (Not offered in 1923-24.) A study of the grammar and vocabulary of Old English. The reading of *Beowulf* and of selections from old English poetry and prose.

Open to juniors and seniors who have completed a year of language in college. Three hours a week for a year. MR. SHEFFIELD.

302. HISTORY OF THE ENGLISH LANGUAGE. Origin and structure of the English Language in vocabulary, grammatical inflections, and syntax as the basis of modern usage.

Open to juniors and seniors. Three hours a week for a year. MISS DENKINGER.

303. SEMINAR IN OLD ENGLISH. (Not given in 1923-24.) A study of Old English inflections, phonology, and syntax. The reading of the best pieces of literature in Old English prose and poetry. A particular problem in either literature or language is assigned to each student for investigation.

Open to graduates, and to seniors by permission of the department. Three hours a week for a year. MISS LOCKWOOD.

FRENCH

ASSISTANT PROFESSORS : EUNICE CLARA SMITH-GOARD, M.A.: LIC. ÈS LET,
 (CHAIRMAN.)
 RUTH ELVIRA CLARK, LITT.D.
 VISITING PROFESSORS : MARGUERITE MESPOULET,⁶ AGRÉGÉE DE L'UNIVERSITÉ
 HENRIETTE ANDRIEU, AGRÉGÉE DE L'UNIVERSITÉ
 INSTRUCTORS : DOROTHY WARNER DENNIS, B.A., DIPL.E.U
 JEANNE ELISABETH FRANCONIE, P.E.N., C.E.S.
 RENÉE JARDIN, LIC. ÈS LET., LIC. EN D.
 MARJORIE LOUISE HENRY, M.A.

All courses beginning with course 101 are conducted in French.

101‡. ELEMENTARY COURSE. FRENCH PHONETICS, GRAMMAR, COMPOSITION, READING, EXERCISES IN SPEAKING, AND DICTATION. The course in-

³Absent on leave.

⁶Appointed for the first semester only.

‡First-year French may not be counted toward the B.A. degree if taken after the sophomore year, nor second-year French if taken after the junior year. French 101 and German 101 may not both be counted toward the B.A. degree.

cludes (1) a practical study of French pronunciation, phonetic drill; (2) the practical study of French grammar; (3) readings on French life and French institutions.

Open to all undergraduates. Three hours a week for a year.

MISS DENNIS.

102‡. INTERMEDIATE COURSE. FRENCH PHONETICS, SYNTAX, COMPOSITION; READINGS FROM CONTEMPORARY AUTHORS OF NOTE; EXERCISES IN SPEAKING; WRITING FROM DICTATION. The course includes (1) a practical study of French pronunciation with phonetic drill; (2) a systematic review of syntax introductory to theme writing and oral narrative; (3) selected readings—prepared and sight—from modern writers.

Open to all students who have completed course 101, or the two unit admission requirement in French. Three hours a week for a year.

MISS DENNIS.

103. THIRD FRENCH COURSE. The aim of this course is the acquisition by the student of a reasonable degree of proficiency in the use of spoken and written French, both as an end in itself and as a preparation for more advanced work in language and in literature. It includes a careful study of pronunciation, with phonetic drill; grammar and free composition, with frequent written exercises and themes; varied reading with the application of *lecture expliquée* methods; it affords opportunity for constant practice in the written and the spoken language.

Open to students who have met the three unit admission requirement in French, also to those who have completed course 102. Three hours a week for a year.

MISS CLARK, MISS FRANCONIE, MISS JARDIN, MISS HENRY.

201. PRACTICAL FRENCH; TRANSLATION, THEMES, AND ORAL COMPOSITION. This course continues the plan of course 103 with additional emphasis on fluency and flexibility in the use of the language. Together with the various kinds of work enumerated, it includes the careful study of selected passages of prose and poetry (*lecture expliquée*) and more extensive parallel readings.

Open to students who have completed course 103 and, on recommendation of the department, to students who have completed course 102. Three hours a week for a year.

MISS SMITH-GOARD.

202. PRACTICAL PHONETICS WITH ADVANCED GRAMMAR AND COMPOSITION. The course consists of a series of lessons in practical phonetics and advanced grammar, with weekly written or oral exercises based on the lessons.

Open to students who have completed course 103. One hour a week for a year.

MISS CLARK.

‡First-year French may not be counted toward the B.A. degree if taken after the sophomore year, nor second-year French if taken after the junior year. French 101 and German 101 may not both be counted toward the B.A. degree.

203. OUTLINE HISTORY OF FRENCH LITERATURE. A survey course, with illustrative reading and *lecture expliquée*.

Open to students who have completed course 103, and, on recommendation of the department, to those who have completed 102. Three hours a week for a year.

MISS CLARK, MRS. ANDRIEU.

301. THE CLASSICAL PERIOD OF FRENCH LITERATURE. As an introduction to this course, a short study is made of the origin of French classicism in the Renaissance movement of the sixteenth century; but the main object of the course is the study of the evolution of French classical literature during the seventeenth century, in the works of the great dramatists and prose writers: Descartes, Corneille, Racine, Molière, La Fontaine, Boileau, Mme. de Sevigné, Pascal, etc.

Open to students who have completed three hours of grade II, and to seniors who have completed or are taking three hours of grade II. Three hours a week for a year.

MRS. ANDRIEU.

302. LITERATURE OF THE FRENCH REVOLUTION. This course aims to give a comprehensive view of the literature of the French Revolution as exemplified in certain representative philosophers and orators: Voltaire, J. J. Rousseau, Diderot, Mirabeau, Robespierre, etc. A special study is made of the origin of French Romanticism as found in the work of Rousseau and his disciples in France and abroad.

Open to juniors and seniors who have completed three hours of grade II. Three hours a week for the first semester.

MISS JARDIN.

303. THE ROMANTIC AND THE REALISTIC PERIODS OF THE NINETEENTH CENTURY. This course treats of French romanticism as expressed in the works of the masters of its various forms—criticism, drama, lyric, novel. The writers studied include: Lamartine, Hugo, Vigny, Musset, G. Sand, Balzac, Flaubert, Taine, Renan, etc.

Open to juniors and seniors who have completed three hours of grade II. Three hours a week for a semester; in 1923-24 offered in both semesters.

MISS MESPOULET, MISS JARDIN.

304. CONVERSATION AND JOURNAL CLUB. Oral reports, reviews, and discussion of important magazine articles, together with a short account, usually at each meeting of the class, of current events in France. The aim of the course is twofold: practice in the use of the spoken language, and a brief study of the France of to-day and of French institutions.

Open to juniors and seniors who have completed or are taking a grade III course. One hour a week for a year.

MISS SMITH-GOARD.

305. INTENSIVE READING. The plan of this course includes grammar, composition, and practical phonetics for continued training in pronunciation, together with the intensive reading of short passages widely varied

in character. French *lecture expliquée* methods, emphasis on oral work.

Open to seniors who have completed nine hours of French beginning with course 103, or who are taking a grade III course. Three hours a week for a year. In 1923-24, three hours a week for the first semester.

MISS HENRY.

307. CONTEMPORARY FRENCH LITERATURE FROM THE BEGINNING OF THE NATURALISTIC PERIOD TO THE PRESENT TIME. The object of this course is to give to advanced students general information about contemporary French novelists, poets, dramatists, critics, and philosophers. The authors studied as representative of the contemporary French period are: E. Zola, G. de Maupassant, A. Daudet, P. Loti, P. Bourget, A. France, M. Barrès; Baudelaire, Leconte de Lisle, J. M. de Heredia, F. Coppée, Sully-Prudhomme, P. Verlaine, H. de Régnier, Madame de Noailles; M. Maeterlinck, E. Rostand; F. Brunetière, J. Lemaître; H. Poincaré, H. Bergson, and the war-writers.

Open to seniors who have completed either course 301 or courses 302 and 303. Three hours a week for a year.

First semester, MISS MESPOULET,

Second Semester, MRS. ANDRIEU.

308. STUDIES IN STYLE. (Not offered in 1923-24.) This course is related to course 307.

Open to students who have completed course 202. One hour a week for a year.

321. OLD FRENCH AND OLD FRENCH LITERATURE. (Not offered in 1923-24.) Phonology with reading of *La Vie de St. Alexis*, *La Chanson de Roland*, *Aucassin et Nicolette*, *Chrétien de Troyes*. Gaston Paris: *Extraits des Chroniqueurs français*. Selections from Constans: *Chrestomathie de l'ancien français*. The history of the French language is traced from its origin to the present time, and illustrated by texts read. For reference, Darmesteter: *Grammaire Historique*; Gaston Paris: *Manuel de la littérature française du moyen âge*; also standard works on the subject in the college library. Lectures, critical reading.

Open to graduates and to seniors by permission of the department. Three hours a week for a year.

322. OLD PROVENÇAL. (Not offered in 1923-24.) This course is complementary to course 321. Together these courses mark the synchronic lines of development of the langue d'oïl and the langue d'oc.

Open to graduate students only.

The department is prepared to direct research work for graduate students in special subjects in Old French and Old French literature, also in modern French language and literature.

GEOLOGY AND GEOGRAPHY

PROFESSOR : ELIZABETH FLORETTE FISHER, B.S. (CHAIRMAN.)
ASSOCIATE PROFESSOR : MARY JEAN LANIER,³ B.S.
ASSISTANT PROFESSOR : MARGARET TERRELL PARKER, M.A.
LECTURER : HERVEY WOODBURN SHIMER, PH.D., Sc.D.
ASSISTANT : ENID TOWNLEY, B.S.
LABORATORY ASSISTANT : MILDRED FISHER, M.A.

101. GENERAL GEOLOGY. First Semester—Physiography. A study of the work which wind, waves, rivers, glaciers, volcanoes, and earth movements have done and are doing to shape the earth's surface. This study explains the origin of hills and valleys, of plains, plateaus and mountains, of continents and ocean basins, and makes clear the ways in which these surface features have affected man's life on the earth. Second Semester—Historical Geology. The origin of the earth and its history from the time of its origin until the present. The evolution of life on the earth traced from its earliest known appearance through its recent development. Lectures and recitations are accompanied by parallel studies in the laboratory and by field and museum excursions.

Open to all undergraduates. Three hours a week for a year.

MISS FISHER, MISS PARKER, MISS TOWNLEY,
MISS MILDRED FISHER.

Geology

201. EARTH EVOLUTION. The origin and evolution of the earth and the life on it as revealed by a study of the rocks of past geologic ages and the fossils they contain. The study includes an explanation of the earth's present surface features, and of the processes by which they have been formed and are now being modified. Lectures, class discussions, laboratory and field work.

Open to juniors and seniors. Not open to students who have completed course 101. Three hours a week for the first semester.

MISS PARKER.

202. ECONOMIC MINERALOGY. A study of the more important minerals. Those minerals are selected which are noteworthy either because they are essential constituents of rocks, or because they are of value economically. The treatment will include a study of the principles of crystallography; the sight recognition of minerals by means of their physical properties; the mode of occurrence and field associations of those minerals; the uses to which they are put industrially; the geographic location and methods of development of mineral deposits of economic importance, with especial emphasis upon the mineral resources of the United States.

Open to students who have completed course 101 or 201. Three hours a week for the first semester.

MISS FISHER.

³Absent on leave.

203. PETROGRAPHY. (Not offered in 1923-24.) A study of the more important igneous, sedimentary, and metamorphic rocks. The work is intended to afford the student an opportunity to become thoroughly familiar with the macroscopic characteristics of the principal rock types and the methods of petrographical study, and to enable the student to gain some acquaintance with the theories of modern petrology. Lectures, class discussions, and laboratory work.

Open to students who have completed course 202. Three hours a week for the second semester.

301. FIELD GEOLOGY. Advanced field study of the region including the Boston Basin and areas immediately surrounding it. The course attempts to train the student to determine and to interpret independently the physiographic and structural geology of the region studied. It deals further with the relation between the physical features of the area and its economic and commercial development. Field study is accompanied by lectures, class discussions, and laboratory work.

Open to juniors and seniors who have completed course 101 and a grade II course, or course 201. Three hours a week for the second semester.

MR. SHIMER.

305. SEMINAR IN GEOLOGY AND GEOGRAPHY. (See GEOGRAPHY 305.)

306. PALEONTOLOGY. The course deals with the facts and problems of organic evolution, as revealed by the life of past geologic ages. By means of a study of fossils the steps in the development from simple, generalized life forms to more complex and specialized types are traced. The effects of physical environment upon life development are emphasized. Lectures, class discussions and laboratory work.

Open to juniors and seniors who have completed Zoology 101 and either Geology 101 or 201. Three hours a week for the first semester.

MR. SHIMER.

Geography

204. CLIMATOLOGY. A study of the relations of climate to man. The course is designed to give an understanding of the elements and the controls of climates; the characteristics of the leading types of climate and the distribution of those types throughout the world; the ways in which climate influences the economic development of regions.

Open to students who have completed course 101 or 201. Three hours a week for the first semester.

MISS PARKER.

205. INDUSTRIAL AND COMMERCIAL GEOGRAPHY. (Not offered in 1923-24.) A study of world production and world trade as influenced by geographic factors. The aim of the course is to give the student an

understanding of the geographic conditions which favor the development of the various types of industries, as pastoral, agricultural, forest, mining, and manufacturing activities; the areas which furnish the important commercial products and the conditions of their production; the geographic basis of trade and the great continental and ocean trade routes; the location and growth of commercial centers; types of commercial nations.

Open to juniors and seniors, and to sophomores who have completed course 101. To count toward a major in the department, but not to count toward the science requirement. Three hours a week for the second semester.

MISS LANIER.

206. CONSERVATION OF OUR NATURAL RESOURCES. A study of the natural resources of the United States,—soils, forests, minerals, and waters; the complete dependence of the nation's industries upon them, and the efficient use of these resources that they may serve the greatest number of people for the longest time. The course includes the study of the need for reducing soil waste, supplying fertilizers for worn-out soil, reclaiming swamp and arid lands, increasing agricultural production and conserving mineral fuels and metals, and of the methods of attaining these results. The course further deals with problems of forest protection, water supply, control of water power, and the use of inland waterways. The course helps to establish principles of good citizenship.

Open to juniors and seniors, and to sophomores who have completed course 101. To count toward a major in the department but not to count toward the science requirement. Three hours a week for the second semester.

MISS FISHER.

302. GEOGRAPHIC INFLUENCES IN THE DEVELOPMENT OF THE UNITED STATES. Regional geography of the United States in its physical, economic, commercial, and historical aspects, including a study of the relation of the continent to the world as a whole, and the influence of its natural resources upon its industrial development and upon the course of American History.

Open to juniors and seniors who have completed either course 101 and a grade II course in the department, or course 201. Three hours a week for the second semester.

MISS FISHER.

303. GEOGRAPHIC INFLUENCES IN THE DEVELOPMENT OF EUROPE. A study of the geographic factors which have been important in determining, in Europe, the early rise of civilization, the distribution of races, the origin and relative importance of the various political units, and the economic development of each of the several countries. The course will include a survey of the more important geographic principles underlying the recent treaty settlement of European boundaries.

Open to juniors and seniors who have completed course 101 and a grade II course in the department, or course 201. Three hours a week for the second semester.

MISS PARKER.

304. GEOGRAPHIC INFLUENCES IN THE DEVELOPMENT OF SOUTH AMERICA. (Not given in 1923-24.) A study of the physiographic features, climates, and resources of South America; the influence of these factors upon the colonization of the continent by Europeans, upon the formation of independent political units, and upon the present and possible future economic development of the various countries.

Open to juniors and seniors who have completed course 101 and a grade II course in the department, or course 201. Three hours a week for the second semester. MISS LANIER.

305. SEMINAR IN GEOLOGY AND GEOGRAPHY. (Not given in 1923-24.) The course begins with a study of the methods of individual research. Early in the course a selected topic is assigned to each student for investigation and reports of the individual work are presented weekly. In this way the work of the seminar is adapted to the needs of the individual student. The student wishing primarily a geographic problem is assigned a selected area in which she is to study the geographic factors which have influenced its development. A student desiring geologic research is assigned a problem in historical, structural, or physiographic geology.

Open to graduate students and to seniors by permission of the department. Three hours a week for the first semester MISS FISHER.

GERMAN

ASSOCIATE PROFESSOR : NATALIE WIPPLINGER, PH.D. (CHAIRMAN.)
ASSISTANT : ELISABETH BIEWEND.

101‡. ELEMENTARY COURSE. GRAMMAR, READING, ORAL AND WRITTEN EXERCISES. The tests used in this course are made the basis for a study of grammatical forms and rules, for speaking exercises and composition work. Frequent written exercises are required.

Open to all students. Three hours a week for a year. MRS. BIEWEND.

102‡. ELEMENTARY COURSE. READING, FREE REPRODUCTION, WRITTEN AND ORAL EXERCISES, SHORT THEMES, MEMORIZING OF POEMS. The methods are the same as in course 101. In connection with the reading special attention is given to the learning of the more common idioms. Some pages of easy reading are required outside of the regular class assignments. Several poems are memorized. Frequent written tests or short themes are required. Course 102 is intended to fit students to enter courses 201, 202.

Open to all students who have completed course 101 or the two unit admission requirement in German. Three hours a week for a year.

MRS. BIEWEND.

‡First-year German may not be counted toward the B.A. degree if taken after the sophomore year, nor second-year German if taken after the junior year. German 101 and French 101 may not *both* be counted toward the B.A. degree.

103. GRAMMAR AND COMPOSITION. (Not given in 1923-24.) Review of elementary grammar and study of more advanced grammar. Bi-weekly themes; grammatical exercises based on texts read in course 104.

Open to freshmen who have met the three unit admission requirement in German, and required in connection with course 104. Course 103 cannot be taken without course 104. One hour a week for a year.

MISS WIPPLINGER.

104. OUTLINE HISTORY OF GERMAN LITERATURE. (Not given in 1923-24.) The object of this course is to furnish the student with the vocabulary necessary for the reading and discussion of literature, and to give her a general historical background for the more detailed study of German literature in subsequent courses. Texts used: Stroebe and Whitney. History of German Literature, Wenckebach's *Meisterwerke*, Goethe's *Dichtung und Wahrheit* (Jagemann).

Open to freshmen who have met the three unit admission requirement in German, and required in connection with course 103. Course 104 cannot be taken without course 103. Two hours a week for a year.

MISS WIPPLINGER.

201. GRAMMAR AND COMPOSITION. The aim of this course is to give the student practice in oral and written expression. Bi-weekly themes; grammatical exercises based on the material treated in course 202.

Open to sophomores, juniors, and seniors who have completed course 102 or equivalent, and required of those taking course 202. Course 201 cannot be taken without course 202. One hour a week for a year.

MISS WIPPLINGER.

202. HISTORY OF GERMAN LITERATURE. The course consists of discussions, reading, and occasional lectures on the history of German literature before Goethe. The aim of the course is to trace the parallel development of the language, literature, social conditions, and religious ideals of the times. Works read and discussed are: the *Hildebrandslied*, selections from the *Nibelungenlied*, from the works of Wolfram, Hartmann, the Minnesingers and the Meistersingers, Luther, Hans Sachs. Second semester: the classical period in German literature, with special emphasis on Lessing, Herder, Schiller, Goethe.

Open to sophomores, juniors, and seniors who have completed course 102 or equivalent, and required in connection with course 201. Course 202 cannot be taken without course 201. Two hours a week for a year.

MISS WIPPLINGER.

204. SCHILLER'S LIFE AND WORKS (Introductory Course). Lectures, discussions. Study of Schiller's life and some of his important dramatic works. Texts: Boyesen's Schiller's Life; *Die Räuber* (Cotta); *Wallen-*

stein (Carruth); Schiller's *Gedichte* (Cotta); Schiller's *Briefe* (Kühnemann).

Open to students who have completed courses 103, 104, or 201, 202. Three hours a week for the first semester. MISS WIPPLINGER.

205. GOETHE'S LIFE AND WORKS (Introductory Course). Lectures, discussions. Study of the principal characteristics of Goethe's life and works to the time of his literary co-operation with Schiller. Works discussed in class: *Götz von Berlichingen*, *Iphigenie*, selected poems (Goebel). Interpretation of "Storm and Stress" in connection with *Götz*, of German classicism in connection with *Iphigenie*. Supplementary discussion of some of the following: Goethe's *Briefe* (Langewiesche), *Dichtung und Wahrheit*; Euripides' *Iphigenie*; Boyesen's *Life of Goethe*.

Open to students who have completed course 204. Three hours a week for the second semester. MISS WIPPLINGER.

206. GERMAN LYRICS AND BALLADS. (Not offered in 1923-24.) Historical study of *Minnesang*, *Volkslied*, and the principal lyric poets up to the present day.

Open to students who have completed courses 103, 104 or 201, 202, and are taking other work in German. One hour a week for a year.

207. STUDIES IN MODERN GERMAN IDIOM. (Not offered in 1923-24.) This course is designed to aid the student in acquiring a larger working vocabulary. Modern German texts are used as a basis of study. Constant oral and frequent written practice.

Open to students taking other work in German, who have completed courses 103, 104, or 201, 202, and by special permission to those who have completed course 102. One hour a week for a year.

301. THE GERMAN NOVEL. (Not offered in 1923-24.) Lectures on the historical development of the German novel before Goethe. Special study of some of the representative novels by Goethe, Eichendorff, Freytag, Spielhagen, Keller, Storm, Sudermann, and others, illustrative of certain important phases of German *Kulturgeschichte*.

Open to juniors and seniors who have completed or are taking three hours of grade II. Two hours a week for a year.

302. HISTORY OF THE GERMAN LANGUAGE. (Not offered in 1923-24.) This course aims to give a fuller and more thorough understanding of modern German through the study of its historical development. Text-book: Behagel's *Die deutsche Sprache*.

Open to juniors and seniors who have completed three hours of grade II and are taking other work in German. One hour a week for a year.

303. MIDDLE HIGH GERMAN (Introductory Course). (Not offered in 1923-24.) Survey of Middle High German forms and sounds. Transla-

tion of Middle High German epic and lyric poetry into the modern idiom.

Open to juniors and seniors who have completed at least three hours of grade II. Three hours a week for the second semester.

304. GOETHE'S FAUST, PART I. Study of the pre-Goethean development of the Faust legend in its more important literary forms. Close study of the text of Goethe's *Faust*, Part I. Collateral readings and reports on the relation of the poem to Goethe's life and times. Part II will be treated in a few final lectures.

Open to juniors and seniors who have completed courses 204. 205. Three hours a week for the first semester. MISS WIPPLINGER.

305. THE GERMAN ROMANTIC SCHOOL. A study of the development and spirit of the German Romantic School. Outside reading assigned from the following reference books: Haym, Brandes, Beers, on Romanticism; R. Huch's *Blütezeit der Romantik*; Hillebrandt's *Lectures on German Thought*; Boyesen's *Essays*; Heilborn's *Novalis*. Class work is based on the works of Friedrich Schlegel, Novalis, Tieck, Chamisso, Eichendorff, Heine, and others.

Open to juniors and seniors who have completed course 304. Three hours a week for the second semester. MISS WIPPLINGER.

306. LESSING AS DRAMATIST AND CRITIC (Seminary Course). (Not offered in 1923-24.) Treatment of Lessing's critical work in literature, theology, and æsthetics. Works read and discussed are: *Minna von Barnhelm*, *Emilia Galotti*, *Nathan der Weise*, *Die Hamburgische Dramaturgie*, *Laokoon*, *Axiomata*, *Anti-Götze*, *Erziehung des Menschengeschlechts*. Reference books: Erich Schmidt's *Lessing*, Kuno Fischer's *Lessing als Reformator der deutschen Literatur*, Kuno Fischer's *Lessing's Nathan*, and others.

Open to seniors who have completed three hours of grade III, and to others by special permission. Three hours a week for the second semester. MISS WIPPLINGER.

307. GOETHE, ADVANCED COURSE (Seminary Course). Study of Goethe's lyrics, ballads, later dramas, parts of *Faust II*, *Wilhelm Meister*, and other works. Collateral reading in the *Goethe Jahrbuch*, and from Eckermann, Gräf, Harnack, and others. Consideration of Goethe's relation to other literatures, and as art-critic.

Open to seniors who have completed course 304 and at least one other three-hour semester course of grade III; students not taking course 304 till the senior year, may by special permission enter course 307. Three hours a week for the first semester. MISS WIPPLINGER.

308. NINETEENTH CENTURY DRAMA. Special study of Kleist, Grillparzer, Otto Ludwig, Hebbel, Ibsen, Hauptmann, Sudermann, and others;

their relation to classic and romantic art, and to the social and philosophical problems of the century.

Open to seniors who have completed course 307. Three hours a week for the second semester. MISS WIPPLINGER.

309. SCHILLER AS PHILOSOPHER AND WRITER ON ÆSTHETICS (Seminary Course). (Not offered in 1923-24.) Study of Schiller through his correspondence with Körner, Goethe, etc., and his philosophic-æsthetic poems and essays. These are read and discussed in class.

Open to seniors who have completed course 204 and at least three hours of grade III. Three hours a week for the first semester.

310. GOTHIC. (Not offered in 1923-24.)

Open to graduates and to seniors by permission of the instructor. Three hours a week for the second semester.

GREEK

PROFESSOR : KATHARINE MAY EDWARDS, PH.D. (CHAIRMAN.)
ASSISTANT : HELEN VIRGINIA BROE, B.A.

101. BEGINNING GREEK. The aim of the course is to cover in one year the fundamental facts of Greek grammar with practice in reading and writing. The text-book is Allen's *First Year in Greek*. The longer selections for reading are from Plato, but quotations from other master-pieces of prose and poetry are included.

Open to all students. Three hours a week for a year.

MISS EDWARDS, MISS BROE.

201. SECOND YEAR GREEK. First semester: Plato; *Apology* and selections from other dialogues. Second semester: Homer, Selected books of *Iliad* or *Odyssey*.

Open to students who have completed course 101 or the two unit admission requirement in Greek. Three hours a week for a year. MISS BROE.

202. PLATO: APOLOGY AND SELECTIONS FROM OTHER DIALOGUES; HOMER: ODYSSEY (six or seven books); EURIPIDES: ONE DRAMA.

Open to students who have met the three unit admission requirement in Greek. Three hours a week for a year. MISS EDWARDS, MISS BROE.

203. GREEK LITERATURE IN ENGLISH TRANSLATIONS. The class will read in translation selections from the works of the Greek poets, from Homer to Theocritus. Lectures on the development of Greek literature and class-discussions will accompany the reading. Special emphasis will be placed upon Greek drama, and as many plays as possible will be read and studied.

Open to juniors and seniors, and to sophomores who have completed one full course in Greek, or Art, or English Literature. Three hours a week for the first semester. MISS EDWARDS.

301. FIFTH CENTURY DRAMATISTS AND HISTORIANS. Reading and study of dramas of Æschylus, Sophocles and Euripides, at least one of each, preceded by rapid reading, partly in class, of selections from Herodotus (Battles of Thermopylæ and Salamis) and Thucydides (Democracy of Athens).

Open to students who have completed course 201 or 202. Three hours a week for a year. MISS EDWARDS.

302. GREEK LYRIC POETRY. (Not given in 1923-24.) Special study of the poems of Sappho and Alcæus; Pindar and Bacchylides; Theocritus. Lectures on development of Greek Lyric Poetry. Reading of Plato's *Ion* and Aristotle's *Poetics*.

Open to students who have completed course 301. Three hours a week for a year. MISS EDWARDS.

303. HOMERIC SEMINARY. Critical study of selected portions of the *Iliad*, with discussions and lectures on special problems.

Open to students who have completed course 302. Three hours a week for a year. MISS EDWARDS.

304. GREEK DIALECTS. (Not offered in 1923-24.) A comparative study of the Greek dialects, their characteristics and their relations to each other, with reading and study of inscriptions and selected texts.

Open to students who have completed one full course of grade III. Three hours a week for a year. MISS EDWARDS.

305. MODERN GREEK. (Not offered in 1923-24.) The course has two objects: first, a practical one, to give some acquaintance with the spoken and written Greek of to-day; second, a linguistic one, to trace the historical development of the language from classical times to the present.

Open to students who have completed one full course of grade III. One hour a week for a year. MISS EDWARDS.

306. INTRODUCTION TO THE SCIENCE OF LANGUAGE. (Not offered in 1923-24.) Lectures on the origin and nature of language and the principles of its life and growth; outline studies in phonetics; classification of languages; groups of the Indo-European languages with chief characteristics.

Open to seniors and juniors who have had one year of Greek. One hour a week for a year and an additional hour in alternate weeks. To count as one and one-half hours. MISS EDWARDS.

For additional courses see Classical Archæology.

For courses in the study of Greek Testament see Biblical History.

HISTORY

PROFESSORS : JULIA SWIFT ORVIS,⁹ PH.D. (CHAIRMAN.)
 MABEL ELISABETH HODDER, PH.D.
 ASSOCIATE PROFESSORS : EDNA VIRGINIA MOFFETT, PH.D.
 BARNETTE MILLER,³ PH.D.
 EDWARD ELY CURTIS, PH.D.
 ASSISTANT PROFESSORS : JUDITH BLOW WILLIAMS PH.D.
 PHILLIPS BRADLEY, B.A.
 INSTRUCTOR : MARY HUME MAGUIRE, PH.D.

103. HISTORY OF WESTERN EUROPE FROM THE FIFTH CENTURY TO THE CONGRESS OF VIENNA. A general survey of the history of Western Europe from the decline of Rome to 1815. Emphasis is laid upon such topics as the mediæval Empire, the Papacy, feudalism, monasticism, the Crusades, the rise of towns, Hundred Years' War, mediæval and Renaissance life and culture, the Reformation, and the beginnings and development of modern nationalities. The course aims to train students in methods of historical work and to furnish a background for the detailed study of particular periods.

Open to all undergraduates. This course is prerequisite to later election. Three hours a week for a year.

MRS. HODDER, MISS MOFFETT, MISS WILLIAMS, MRS. MAGUIRE.

201. HISTORY OF EUROPE SINCE THE FRENCH REVOLUTION. This course includes (1) an introductory discussion of the condition of France on the eve of the Revolution; (2) a study of the Revolution and the Napoleonic Era; (3) a study of the influence of revolutionary ideas in the subsequent history of Europe.

Open to sophomores, juniors, and seniors who have completed one full course in History. Three hours a week for a year.

First semester, MISS ORVIS;
 Second semester, MRS. MAGUIRE.

202. CONSTITUTIONAL HISTORY OF ENGLAND TO 1399. (Not offered in 1923-24.) A study of the development of English constitutional government as an expression of the character of the English people. The course deals with the Germanic origins, and with the development of English thought along constitutional lines to the close of the Plantagenet period.

Open to students who have completed one full course in History. Three hours a week for the first semester.

MISS MOFFETT.

203. CONSTITUTIONAL HISTORY OF ENGLAND FROM 1399 TO THE PRESENT TIME. (Not offered in 1923-24.) A study of the later development of

³Absent on leave.

⁹Absent on Sabbatical leave for the second semester.

the English constitution, the rise of party and cabinet government, and the actual working of the constitution to-day.

Open to students who have completed one full course in History. Three hours a week for the second semester. MISS MOFFETT.

204. HISTORY OF ROME. This course offers a general survey of Roman History. The attempt is made to present the problems of recent scholarship in the study of the earlier period, but the main emphasis is placed upon the later Republic and the Empire. Particular attention will be given to economic and social conditions, and to the development of the Roman system of government.

Open to sophomores, juniors, and seniors who have completed one college course in History, or who are giving special attention to Latin or Greek or Economics. Three hours a week for a year. MRS. HODDER.

205. COLONIAL AMERICA. *a.* Age of Discovery and Conquest. *b.* The American Revolution. After surveying the discovery and exploration of America in the sixteenth and seventeenth centuries, the course deals with the foundation and growth of the British Empire in America. Emphasis is laid upon British colonial policy and administration. The second semester is devoted mainly to a consideration of the American Revolution, attention being directed to the problems of British statesmanship and the European background.

Open to sophomores, juniors, and seniors who have completed or are taking a full course in History. Three hours a week for a year.

MR. CURTIS.

206. THE GOVERNMENT OF THE UNITED STATES. (Not given in 1923-24.) Emphasis will be given to the development of the National Government, its expanding powers, and the newer ideals which western expansion and international relations have crystallized into national policies. A short study of the major governments of Europe will be made the basis for a comparative analysis of our political institutions.

Open to sophomores, juniors and seniors who have completed History 103, or Economics 101. Three hours a week for a year.

MR. BRADLEY.

207. GEOGRAPHY OF EUROPEAN HISTORY. (Not offered in 1923-24.) The institutions, economic and social conditions, and political history of some parts of Europe will be briefly studied in connection with their topography. Besides the study of the more important changes of boundaries, the course will attempt to strengthen the connection between *events* and *localities*, and to give a clearer conception of the scene of

events already studied, or to be studied, in other courses in European History.

Open to all seniors and to juniors and sophomores who have completed one college course in History. Three hours a week for the first semester.

MISS MOFFETT.

208. INTERNATIONAL POLITICS. (Not offered in 1923-24.) The object of this course is to give a general view of international conditions since the close of the Bismarck period, with especial reference to the present relations of Europe, America, and Asia.

Open to all seniors and to juniors who have completed or are taking a full course in History. Three hours a week for the second semester.

MISS MILLER.

209. POLITICAL HISTORY OF RUSSIA FROM THE EARLIEST TIMES TO THE PRESENT. This course includes a study of (1) the forces which made Russia a world power, (2) the development and policy of the autocracy, and (3) the struggle for freedom, culminating in the revolution of 1917, and its consequences.

Open to all seniors, and to juniors who have completed or are taking another course in History. Three hours a week for the first semester.

MISS ORVIS.

210. MEDIÆVAL LIFE AND INSTITUTIONS. The aim of the course is to show the points of contact and of difference between the modern spirit and the mediæval, as well as to serve as a background for the study of modern history, or of mediæval art or literature. It covers the period from the fourth to the close of the fourteenth century, emphasizing those phases of mediæval life which have left the strongest impress, and dealing with some of the great personalities whose work is still vital. A few mediæval sources are read at first hand.

Open to students who have completed course 103. Three hours a week for a year.

MISS MOFFETT.

211. MUNICIPAL GOVERNMENT AND ADMINISTRATION. The structure, functions, and activities, of modern city governments. There will be some comparison with local government abroad, but special emphasis will be laid on present tendencies in American city government, recent developments in organization, and the achievements of "Municipal Reform" in producing efficiency in administration.

Open to juniors and seniors who have completed one full course in History or Economics. Three hours a week for the first semester.

MR. BRADLEY.

212. PARTY GOVERNMENT AND MACHINERY. The growth of parties in the United States—their present organization and activities. A comparison of the American and British two-party system with the multiple party system of Continental Europe will distinguish the effects of each system on the actual control of government by the people.

Open to juniors and seniors who have completed one full course in History or Economics. Three hours a week for the second semester.

MR. BRADLEY.

213*. HISTORY OF ENGLAND AND GREATER BRITAIN. A general survey of English History with especial emphasis upon those political, social and economic forces which have led to the expansion of England and to the position and problems of the British Empire of to-day.

Open to sophomores, juniors and seniors who have completed one full course in History. Three hours a week for a year.

MISS WILLIAMS.

301. HISTORY OF THE UNITED STATES FROM 1787 TO THE PRESENT TIME. A study of the formation and development of the constitution of the United States, with special reference to controlling forces, such as the organization of parties, the growth of democracy, the rise of the slave power, the political effect of the development of the West.

Open to juniors and seniors who have completed one full course and have completed or are taking a second course in History. Three hours a week for a year.

MR. CURTIS.

302†. EUROPE IN RENAISSANCE AND REFORMATION. A study of the intellectual, religious, and social life of the fifteenth and sixteenth centuries. In the first semester the Renaissance in Italy and France is emphasized, and in the second semester the Reformation and the Age of Elizabeth.

Open to juniors and seniors who have completed two full courses in History, or one course in History and two courses in Art. Three hours a week for a year.

MISS MOFFETT.

304‡. ENGLAND UNDER THE TUDORS AND STUARTS. (Not offered in 1923-24.) This course deals with the religious and constitutional struggles in the sixteenth and seventeenth centuries, with economic and social changes, international relations, and with the founding of the British Empire.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

MRS. HODDER.

305. DIPLOMATIC HISTORY OF EUROPE SINCE 1740. (Not offered in 1923-24.) This course includes (1) a review of the period 1648-1740;

*History 213 will alternate with History 311.

†History 302 will alternate with History 309.

‡History 304 will alternate with History 310.

(2) the age of Frederick II; (3) a Survey of the Revolutionary and Napoleonic period; (4) the age of Bismarck and its results.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year. MISS ORVIS.

306. GROWTH OF THE BRITISH EMPIRE. (Not offered in 1923-24.) This course includes (1) a historical review of the development of the empire; (2) a study of the changes of colonial policy; (3) a study of colonial administration; and (4) a discussion of present colonial and imperial problems.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for the first semester.

307. AMERICAN FOREIGN RELATIONS. This course deals with the most significant diplomatic problems which have arisen as the result of war, westward expansion, the growth of foreign commerce, immigration, and the acquisition of colonial possessions. The origin of important treaties, the development of the Monroe Doctrine, and the evolution of the United States into a world power will be traced.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year. MR. CURTIS.

308. HISTORY OF POLITICAL INSTITUTIONS. (Not offered in 1923-24.) This is an introductory course in the comparative study of the origin, character, development, and aim of political institutions.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

309†. SELECTED STUDIES IN MEDIAEVAL HISTORY. (Not offered in 1923-24.) The course is designed to give training in methods of historical research, using the mediæval period as a field.

Open to approved juniors, seniors, and graduates who have completed course 103 and one other full course in the department. Three hours a week for a year. MISS MOFFETT.

310‡. THE DEVELOPMENT OF THOUGHT FROM CLASSIC TIMES THROUGH THE MIDDLE AGES: A STUDY OF THE EVOLUTION OF THE MEDIAEVAL MIND. This course treats of Greek thought and its expression, its transformation in Latin hands, the culture of the early Christian centuries, and the later development of the mediæval genius.

Open to juniors and seniors who have completed History 103 and one other three-hour course in History. Three hours a week for a year.

MRS. HODDER.

†History 309 will alternate with History 302.

‡History 310 will alternate with History 304.

311*. SOCIAL AND CULTURAL HISTORY OF EUROPE. (Not offered in 1923-24.) A course in the evolution of civilization, tracing the development of culture from early times through the rise of the Mediterranean civilizations, the Middle Ages, the Renaissance and modern times and covering the more important phases of social, economic and intellectual life.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year. MISS WILLIAMS.

312. CONSTITUTIONAL LAW IN THE UNITED STATES. This course will deal with the effect of the power of judicial review on the actual progress of our national life, especially in its economic and social aspects.

Open to juniors and seniors who have completed one full course and have completed or are taking a second course in History. For one History course a course in Economics may be substituted. Three hours a week for the first semester. MR. BRADLEY.

313. INTERNATIONAL LAW. The problem of international relations as viewed by the diplomat and jurist. Discussion of cases will be supplemented by readings from the leading authorities and the decision of hypothetical questions based on actual historical events.

Open to juniors and seniors who have completed one full course and have completed or are taking a second course in History. For one History course a course in Economics may be substituted. Three hours a week for the second semester. MR. BRADLEY.

314. SELECTED PROBLEMS IN GOVERNMENT. The course will deal with special problems from a comparative viewpoint. Such questions as the status and functions of second chambers, the position of the civil service, proportional representation, the government of dependencies, and international administration will be considered in the light of actual and proposed solutions in different countries.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year. MR. BRADLEY.

*History 311 will alternate with History 213.

HYGIENE AND PHYSICAL EDUCATION

- PROFESSORS : MABEL LOUISE CUMMINGS, B.S.,
DIRECTOR OF THE DEPARTMENT.
WILLIAM SKARSTROM, M.D.
- ASSOCIATE PROFESSORS : EUGENE CLARENCE HOWE, PH.D.
JULIA ELEANOR MOODY, PH.D.,
ASSOCIATE PROFESSOR OF ZOOLOGY.
GRACE MEDES, PH.D.,
ASSOCIATE PROFESSOR OF PHYSIOLOGY.
- RESIDENT PHYSICIAN : KATHARINE PIATT RAYMOND, B.S., M.D.
- INSTRUCTORS : MARGARET JOHNSON.
MARY SOPHIE HAAGENSEN.
HARRY EDWARD BROWN, B.A.
HARRIET CUTLER WATERMAN, M.A.,
INSTRUCTOR IN PHYSIOLOGY.
CAROLINE WHITEHOUSE COLEMAN, B.A.
CHARLOTTE GENEVIEVE MACEWAN, B.S.
- ASSISTANTS : FANNY GARRISON, B.A.
ANNIE CHAPIN STEDMAN.
DOROTHY DRAKE, B.S.
- RECORDER : MARTHA COOK BLODGETT, B.A.,
LIBRARIAN : JULIA CLEMMMA KNOWLTON, PH.B., B.L.S.
- SECRETARY : ANNA ELIZABETH ANDERSON.
- SPECIAL LECTURERS : WALTER ADAMS BRADFORD, D.M.D.,
LECTURER ON ORAL HYGIENE.
JOSEPH WILLIAM COURTNEY, M.D.,
LECTURER ON THE HYGIENE OF THE NERVOUS SYSTEM.
FOSTER STANDISH KELLOGG, M.D.,
LECTURER ON PELVIC HYGIENE.
WALTER B. LANCASTER, M.D.,
LECTURER ON VISUAL HYGIENE.
ANDREW ROY MACAUSLAND, M.D.,
LECTURER ON ORTHOPEDICS.
WILLIAM RUSSELL MACAUSLAND, M.D.,
LECTURER ON ORTHOPEDICS.
WILLIAM EMERSON PREBLE, B.A., M.D.,
LECTURER ON INTERNAL MEDICINE.
HAROLD GRANT TOBEY, M.D.,
LECTURER IN OTO-LARYNGOLOGY.
HARVEY PARKER TOWLE, M.D.,
LECTURER ON THE HYGIENE OF THE SKIN.

I. Courses Prescribed for the Certificate of the Department

(1) A two years' course especially designed for the training of teachers of hygiene and physical education and leading to the certificate of the Department of Hygiene and Physical Education is offered to graduates of approved colleges. In order to be admitted to this course candidates must be without organic disease or serious functional disorder. A keen sense of rhythm is necessary, and also the ability to use the voice with ease and power. Previous courses in Chemistry, Physics, Psychology and Education are essential. If a satisfactory course in Chemistry or Physics is lacking, it must be taken in the first year.*

Courses leading to the degree of M.A. may be completed while in residence for the certificate. Detailed information will be found in the Circular of the Department or the Graduate Circular.

(2) A five years' course is offered leading to the B.A. degree and the certificate of the Department of Hygiene and Physical Education. This course is open only to candidates for the B.A. degree in residence at Wellesley College. In general, students in this course receive the B.A. degree at the end of the fourth year and complete in the fifth year the work required for the certificate. The following courses may count toward the Bachelor's degree: course 301, one and one-half hours; courses 302, 303, 321, 322, each three hours. (See pages 93, 94 for Directions for Candidates for the B.A. Degree and for the Certificate of the Department.)

Required Courses for First-Year Students

101. GYMNASTICS. Marching—adaptation of modern military marching. Elementary to fairly advanced free-standing gymnastic exercises,

*See undergraduate courses in Chemistry or Physics.

with and without hand apparatus. Elementary exercises on gymnastic apparatus.

Required of first-year students. Three hours a week in the fall and five in the winter.

DR. SKARSTROM, MISS COLEMAN.

102. TEAM GAMES AND SPORTS. Practice for skill, study of rules and coaching methods; fall season—baseball, basket-ball and field hockey; spring season—archery, baseball, basket-ball, rowing and tennis. Horse-back riding is elective and carries a special fee.

Required of first-year students. Six hours a week in the fall, eight hours in the spring.

MR. BROWN, MISS COLEMAN,
MISS MACEWAN, MISS GARRISON.

103. PERSONAL HYGIENE. A conservative exposition of the regulation of the environmental conditions of health, and of the guidance of adaptation to these conditions.

Required of first-year students. One hour a week for the first semester.

MR. HOWE.

104. DANCING. Elementary rhythmic work and dramatic games for small children the first semester; folk and national dances the second semester.

Required of first-year students. One hour a week for the first semester, two hours for the second semester.

MISS MACEWAN.

105. DANCING. This course aims at spontaneous artistic expression of music through bodily movement. It includes fundamental exercises and their application, a vocabulary of steps based upon such natural activities, and a study of the form and mood of music in relation to the dance.

Required of first-year students two hours a week for a year.

MISS MACEWAN.

106. SYMPTOMATOLOGY AND EMERGENCIES. First Aid methods and a brief statement of the nature, causes and symptoms of the more common diseases.

Required of first-year students. One hour a week for the first semester.

DR. RAYMOND.

107. SWIMMING.

Required of first-year students. Twelve lessons in the second semester.

203. TECHNIQUE OF TEACHING GYMNASTICS. Lectures and quizzes on gymnastic terminology with a survey of gymnastic material, followed by preliminary practice teaching. Thorough drill on all technical devices of teaching.

Required of first-year students. Three hours a week for a year.

DR. SKARSTROM, MISS COLEMAN.

208. **PLAY, PLAYGROUNDS, AND ATHLETICS.** Psychology of play; forms, uses and selection of play activities. Playground management and supervision. Practice and discussion of the following activities: track and field athletics, mass games, group games, dramatic and mimetic play.

Required of first-year students. Two hours a week for a year.

MR. BROWN.

301. **MAMMALIAN ANATOMY.** (ZOOLOGY 301.) Lectures and laboratory work on the gross anatomy of bones and muscles; digestive, respiratory, excretory, reproductive, circulatory, and nervous systems. Special emphasis on the human skeleton and muscles. This course counts one and one-half hours toward the Bachelor's degree.

Required of first-year students; also of juniors who are registered as five-year Hygiene students. If counted as part of a major in Zoology, course 301 should be preceded by Zoology 101. One and one-half hours a week for a year.

MISS MOODY, MISS WATERMAN.

302. **GENERAL PHYSIOLOGY.** (ZOOLOGY 302.) Physical phenomena underlying the functions of animal organisms—osmosis, surface tension, cell permeability, etc.—and the part played by them in normal physiological processes. A brief survey of human histology serves as a basis for its application to human physiology. This course counts three hours towards the Bachelor's degree.

Required of first-year students; also of seniors registered as five-year Hygiene students. Open to those juniors, registered as five-year Hygiene students, who plan to elect a second course in Physiology in the Department of Zoology and Physiology. If counted as part of a major in Zoology, course 302 should be preceded by Zoology 101. Three hours a week for a year.

MISS MEDES.

303. **KINESIOLOGY.** Lectures and recitations dealing with the anatomical mechanism of movements: the rôles of joint motion, muscular action, gravity, leverage, inertia, and internal resistance in the production and modification of gymnastic movements and their effects, as contrasted with "natural" movements. This course counts three hours toward the Bachelor's degree.

Required of first-year students. Three hours a week for a year.

DR. SKARSTROM.

Required Courses for Second-Year Students

201. **GYMNASTICS.** Intermediate and advanced marching, gymnastic free-standing exercises, both without and with hand apparatus, and apparatus work.

Required of second-year students. Two hours a week in the fall and four hours in the winter,

DR. SKARSTROM.

202. TEAM GAMES AND SPORTS. A continuation of technique and method begun in course 102.

Required of second-year students. Seven hours a week in the fall and spring.

MISS JOHNSON, MR. BROWN, MISS COLEMAN,
MISS MACEWAN, MISS GARRISON.

204. DANCING. Representative clog and character dances.

Required of second-year students. One hour a week either semester.

MISS MACEWAN.

205. DANCING. A continuation of course 105 with a study of adaptation for teaching purposes.

Required of second-year students. Two hours a week for the second semester.

MISS MACEWAN.

206. PRACTICE IN TEACHING DANCING. Practice in teaching carried on in connection with further study of the aims and principles of adaptation.

Required of second-year students. Two hours a week for the first semester.

MISS MACEWAN.

207. SWIMMING. Each lesson consists of one-half hour lecture, one-half hour in teaching elementary swimming, and one-half hour practice in diving, life saving methods (according to standards adopted by the National Association of Directors of Girls' Camps), and the more useful water games.

Required of second-year students. Twelve lessons in the second semester.

209. APPLIED HYGIENE, CORRECTIVE EXERCISE, AND MASSAGE. First semester: Prepathological conditions. Second semester: Pathological conditions. Approximately 20 lectures in this course are given by orthopedic and medical specialists. Clinical demonstration of orthopedic material is given at the Carney Hospital.

Required of second-year students. Two hours a week for a year.

MISS HAAGENSEN, DR. MACAUSLAND and other lecturers.

211. MEASUREMENTS AND GRAPHIC RECORDS. Laboratory work in the use of anthropometric and graphic instruments (used in physical examination), with practice in recording and filing; a presentation of the statistical methods of value in the solution of problems based upon anthropometric measurement.

Required of second-year students. One hour a week for the second semester.

MISS COLEMAN.

212. HISTORY AND LITERATURE OF PHYSICAL EDUCATION. A brief

historical survey followed by a study of present problems and practices as revealed by recent literature.

Required of second-year students. One hour a week for a year.

MR. BROWN.

213. CORRECTIVE EXERCISE AND MASSAGE. Preparation for and practice under supervision in the use of methods and exercises taught in course 209. The work is carried on with public school pupils and with college students.

Required of second-year students. Two hours a week from September to May.

MISS HAAGENSEN, MISS GARRISON.

214. PRACTICE TEACHING. Students assist in the required work of the college classes and carry on under careful supervision regular physical education work in the public schools of Wellesley.

Required of second-year students. Six to eight hours a week for the year.

DR. SKARSTROM, MR. BROWN, MISS COLEMAN.

215. TECHNIQUE AND PRINCIPLES OF COACHING TEAM SPORTS. A special study of the principal team sports including objectives, elementary and advanced technique and strategy, plans for daily work and for the season's organization, with special regard to the psychology of competition and the health aspects of various sports.

Required of second-year students. One hour a week for the first semester.

MR. BROWN, MISS COLEMAN.

304. THEORY OF PHYSICAL EDUCATION AND METHODS OF TEACHING. Study and discussion of the purposes, scope, and ideals of physical education; the character, selection, classification, arrangement, and progression of gymnastic exercises, and the principles and technique of teaching.

Required of second-year students. Three hours a week for a year.

DR. SKARSTROM.

321. APPLIED PHYSIOLOGY. The application of human physiology to the problems of hygiene and physical education. Reading and discussion based on laboratory findings which amount to a physiometric survey. The basic ideas throughout the course are the *interaction of functions*, especially in connection with the effects of exercise and the problems of fatigue, co-ordination, training and growth. Selected tests of fatigue and fitness are performed by the class on themselves, and when feasible on untrained subjects. This course counts three hours toward the Bachelor's or Master's degree.

Required of second-year students. Course 302 or its equivalent is a prerequisite. Three hours a week for a year.

MR. HOWE.

Elective Courses

108. INDOOR BASKET BALL. (Not given in 1923-24.) The technique and practice of indoor basket ball.

Open to first and second-year students and to five-year students by arrangement. One hour a week for the first semester. MISS COLEMAN.

109. GYMNAS TIC APPARATUS WORK. Review and additional practice of the apparatus work given in 101 and 201.

Open to first and second-year students, and to five-year students by arrangement. One hour a week, November to May. DR. SKARSTROM.

216. MUSIC IN RELATION TO DANCING. This course includes ear-training for dance music, lectures on rhythms and time, and analyses of music forms and dance forms and their relationship to each other.

Open to first and second-year students. One hour a week for the second semester. MISS JOHNSON.

217. PROBLEMS OF ORGANIZATION AND ADMINISTRATION. Organization and management studied by field trips, discussion, and library investigation. Records, reports and budgets, construction and upkeep of buildings and sport fields.

Open to first and second-year students in the Department. One hour a week for the second semester. MISS CUMMINGS.

218. PROBLEMS IN CORRECTIVE WORK. A course planned for those wishing to prepare for remedial work in schools or hospitals. Hospital clinic work is provided.

Open to second-year students. One or more hours a week either semester. MISS HAAGENSEN, DR. MACAUSLAND.

322. HEALTH PROBLEMS OF SCHOOL AND COMMUNITY. The problems of growth, of health instruction and environmental hygiene in the solution of which the teacher in physical education should be prepared to assist, advise or supervise. This course counts three hours toward the Master's degree.

Open to students who have completed course 302 or 321. Three hours a week for a year. MR. HOWE.

323. SEMINARY IN HYGIENE AND PHYSICAL EDUCATION. Reading, investigation and reports on current problems in hygiene and physical education; conferences; presentation of one or more papers for discussion.

Open to graduate students in the Department by permission. One or more semester hours.

THE DIRECTOR AND MEMBERS OF THE DEPARTMENT.

II. Courses Open to all Undergraduates

Two hours in Hygiene and Physical Education are prescribed for the degree. One hour of this requirement is met by course 120; the second hour is met by four periods of practical work, two periods per week in the freshman year and two in the sophomore year, usually by courses 121 and 122.

Courses 124 and 125 may be required in place of 121 and 122; and course 123 may be substituted for 122. See description of courses. Except as thus provided they do not count toward the degree.

120. PERSONAL HYGIENE. The aim of this course is to present the principles of personal hygiene and public health and to develop their intelligent application to the daily living of college students and members of families and communities.

Required of freshmen. One hour a week for a year.

MISS CUMMINGS AND ASSISTANTS.

121. GYMNASTICS AND OUTDOOR SPORTS. Organized sports for six weeks in the fall and spring, designated 121 f. s. (fall, spring); gymnastics in the winter, 121 w. (winter). The sports offered are archery, baseball, basket ball, field hockey, horse-back riding, golf, rowing, tennis, volley ball and selected track and field events. Students with individual health problems will substitute course 124 for 121 w.

Required of freshmen. Two hours a week for a year, counting one-half hour toward the degree.

MR. BROWN, MISS COLEMAN, MISS JOHNSON,
MISS MACEWAN, MISS GARRISON AND ASSISTANTS.

122. GYMNASTICS AND OUTDOOR SPORTS. Advanced work in the activities enumerated under course 121. The outdoor work of this course is designated as 122 f. s. (fall, spring), and the indoor work as 122 w. (winter). Students needing corrective or remedial work will substitute course 124 or 125 for the gymnasium practice of this course.

Required of sophomores who have completed course 121. Two hours a week for a year, counting one-half hour toward the degree.

MR. BROWN, MISS COLEMAN, MISS JOHNSON, MISS MACEWAN,
MISS GARRISON AND ASSISTANTS.

123. GYMNASTICS.

Open to juniors and seniors who have completed courses 121 and 122 or their equivalent, and by examination to sophomores who have had an equivalent of courses 121 and 122. Two hours a week from November to May.

DR. SKARSTROM, MISS JOHNSON, AND ASSISTANTS.

124. CORRECTIVE EXERCISE AND APPLIED HYGIENE.

Required in place of 121 w. or 122 w., in the case of all freshmen or sophomores whose physical condition indicates the need of individualized work. Two hours a week from November to May.

MISS HAAGENSEN, MISS GARRISON, AND ASSISTANTS.

125. CORRECTIVE EXERCISE AND APPLIED HYGIENE.

Required of those who need to continue the work of 124. Two hours a week from November to May.

MISS HAAGENSEN, MISS GARRISON, AND ASSISTANTS.

126. ORGANIZED SPORTS. Archery, baseball, basket ball, golf, field hockey, horse-back riding, rowing, tennis, volley ball and selected track events.

Open to juniors and seniors who have completed courses 121 and 122, or their equivalent. Two hours a week in the fall and spring terms. Not to count toward the degree.

MISS JOHNSON, MR. BROWN, MISS COLEMAN, MISS MACEWAN,
MISS GARRISON AND FIELD INSTRUCTORS.

127. DANCING. This course aims at the spontaneous artistic expression of music through bodily movement. It includes progressive fundamental exercises for neuro-muscular control and the application of these in the expression of the content of music; a vocabulary of steps based upon such natural activities as walking, running, skipping, leaping, etc.; and a study of the form and mood of music in its relation to the dance.

Open to students who have had no previous training. One hour a week from November to May. Not to count toward the degree.

MISS MACEWAN.

128. DANCING. Continuation of 127.

Open to students who have completed course 127 or an equivalent. One hour a week from November to May. Not to count toward the degree.

MISS MACEWAN.

**Directions to Undergraduates who are Candidates for the B.A. Degree and
for the Certificate of the Department of Hygiene and
Physical Education**

Five years are required to complete the work for both degree and certificate. The work of the degree may be completed in four years.

A student may enter this five-year course at the beginning of her freshman, sophomore, or junior year. By the end of the sophomore year a student should have completed Hygiene and Physical Education 120, 121, 122, Biblical History 101.2, Chemistry 101, and Physics 101, or should offer satisfactory equivalents. A full major in Zoology is an advantage. Courses 127, 128 in Hygiene and Physical Education are advised. The work for the last three years is as follows:

Junior Year: Courses 101, 102, 105, 106* and 301. Course 301 counts toward the B.A. degree and a major in Zoology.

Senior Year: Courses 104, 107, 123, 203, 208, 302 and 303. Courses 302 and 303 count toward the B.A. degree and course 302 toward a

*Students are advised to postpone course 106 until the senior year, if possible.

major in Zoology. Course 321 must generally be postponed to the fifth year, but, if taken by arrangement, will count three hours toward the B.A. degree.

Fifth Year: Courses 201, 202, 204, 205, 206, 207, 209, 211, 212, 213, 214, 215, 304, 321 if not already completed. Course 322 may be elected and counts three hours for the M.A. degree; course 321 may also count toward the M.A. degree.

Education 201 is required and should be taken in the junior year. Courses in French, German, Economics and Psychology are advised.

Students are also referred to the Circular of the Department of Hygiene and Physical Education.

ITALIAN

PROFESSOR : MARGARET HASTINGS JACKSON.

101‡. ELEMENTARY COURSE. Grammar, with written and oral exercises; reading and sight translation; conversation.

Open to all undergraduates. Three hours a week for a year.

MISS JACKSON.

201. INTERMEDIATE COURSE. Grammar, prose composition; reading and translation at sight; in the first semester from modern authors; in the second semester from the classic authors.

Open to students who have completed course 101 or equivalent. Three hours a week for a year.

MISS JACKSON.

202*. DANTE AND THE EARLY ITALIAN RENAISSANCE. ENGLISH COURSE. (Not offered in 1923-24.) Dante's *Divine Comedy* (in English) and the conditions of the age which produced it; the Early Italian Renaissance as expressed in the works of Petrarch and Boccaccio. A knowledge of Italian is not required.

Open to juniors and seniors. Three hours a week for a year.

MISS JACKSON.

NOTE.—The Dante Society offers an annual prize of one hundred dollars for the best essay on a subject drawn from the life or works of Dante. The competition is open to students or graduates of not more than three years' standing from colleges or universities in the United States. For subjects and conditions consult page 215 of the Harvard University Catalogue, 1922-23.

301. HISTORY OF ITALIAN LITERATURE IN THE THIRTEENTH AND FOURTEENTH CENTURIES. EMPHASIS ON DANTE. Selections from the *Vita*

‡Italian 101 may not be counted toward the B.A. degree, if taken after the junior year.

*It will be the privilege of students in courses 202, 303, 304, and 305 to have access to the manuscripts and early—often contemporary—editions of Italian authors contained in the Frances Pearsons Plimpton Collection.

Nuova and the *Divina Commedia* of Dante, the Sonnets of Petrarch and the Tales of Boccaccio will be read in the original.

Open on consultation with the instructor to juniors and seniors who have a reading knowledge of Italian. Three hours a week for a year.

MISS JACKSON.

302. HISTORY OF ITALIAN LITERATURE IN THE NINETEENTH CENTURY. (Not offered in 1923-24.)

Open to juniors and seniors who have completed courses 101 and 201 or equivalents. Three hours a week for a year.

MISS JACKSON.

303*. ITALIAN PROSE WRITERS OF THE FIFTEENTH AND EARLY SIXTEENTH CENTURIES. (Not offered in 1923-24.) Selections from the works of Macchiavelli, Castiglione, Savonarola and other writers of the period will be read in the original.

Open on consultation with the instructor to juniors and seniors who have a reading knowledge of Italian. Three hours a week for the first semester.

MISS JACKSON.

304*. ITALIAN POETS OF THE FIFTEENTH AND EARLY SIXTEENTH CENTURIES. (Not offered in 1923-24.) Selections from Poliziano, Lorenzo de' Medici, Boiardo, Ariosto, Michael Angelo, Vittoria Colonna will be read in the original. While courses 303 and 304 are continuous, one being the complement of the other, they may be elected separately.

Open on consultation with the instructor to juniors and seniors who have a reading knowledge of Italian. Three hours a week for the second semester.

MISS JACKSON.

305*. LITERATURE OF THE ITALIAN RENAISSANCE. (Not given in 1923-24.) It is not the intention of the instructor to cover the entire period of the Renaissance but to treat of certain aspects only, the work to adjust itself to the needs of the individual student. Under the supervision of the instructor the student will choose some author, or phase, or problem of Italian literature for special study, reporting thereon weekly.

Open on consultation with the instructor to graduate students who have a reading knowledge of Italian. Three hours a week for a year.

MISS JACKSON.

*It will be the privilege of students in courses 202, 303, 304, and 305 to have access to the manuscripts and early—often contemporary—editions of Italian authors contained in the Frances Pearsons Plympton Collection.

LATIN

PROFESSORS : ADELINE BELLE HAWES, M.A. (CHAIRMAN.)
ALICE WALTON, PH.D.

ASSOCIATE PROFESSOR : CAROLINE REBECCA FLETCHER,³ M.A.

ASSISTANT PROFESSOR : ANNA BERTHA MILLER, PH.D.

101. INTRODUCTION TO LATIN LITERATURE. A brief survey of the literature illustrated by short passages from representative authors in connection with a more detailed study of certain masterpieces in prose and verse. First semester, Studies in Prose, the Essay and the Letter. Cicero's *Essays on Old Age* and *Friendship* and selections from his correspondence with friends, followed by a few letters of other Latin authors. Second semester, Studies in Poetry, Terence, *The Andria*; Horace, the *Epodes*, Ovid, *Metamorphoses*.

Open to freshmen, and to sophomores, juniors, and seniors who have had no Latin in college. Three hours a week for a year.

MISS WALTON, MISS MILLER.

102. CONTRIBUTIONS OF LATIN LITERATURE TO MODERN LIFE AND THOUGHT. The study of passages in Latin authors embodying certain fundamental ideas which are a part of the classical heritage of modern life. The reading and class discussion will center about topics suggested in such current terms as *imperial destiny*, *citizenship*, *nationalism*, the *State Church*, *humanism*, etc. The readings will be selected from Catullus, Cicero, Horace, Livy, Ovid, Vergil, and other authors.

Open to freshmen, and to sophomores, juniors, and seniors who have had no Latin in college. Three hours a week for a year.

MISS MILLER.

201. HORACE. The *Odes* are studied, with selections from the *Epistles*.
Open to students who have completed course 101 or 102. Three hours a week for the first semester.

MISS WALTON.

202. VERGIL. Selections from the *Bucolics*, *Georgics*, and *Æneid*, VII-XII.

Open to students who have completed course 101 or 102. Three hours a week for the first semester.

MISS HAWES.

203. TIBULLUS, PROPERTIUS, AND OVID. (Not offered in 1923-24.)

Open to students who have completed course 101 or 102. Three hours a week for the first semester.

MISS FLETCHER.

204. STUDIES IN TACITUS AND PLINY. Tacitus, *Germania* and *Agricola*, with selections from the other works. Pliny's *Letters*. The work in Pliny includes careful study of certain letters and the rapid reading of many others.

Open to students who have completed a semester course of grade II. Three hours a week for the second semester.

MISS WALTON.

³Absent on leave.

205. CICERO'S PHILOSOPHICAL WORKS. Selections from the *Tusculan Disputations*, the *De Officiis* and other works.

Open to students who have completed a semester course of grade II. Three hours a week for the second semester. MISS HAWES.

206. LATIN PROSE COMPOSITION. INTERMEDIATE COURSE.

Open to students who have completed course 101 or 102. One hour a week for a year. MISS MILLER.

207. SIGHT READING IN PROSE AND VERSE. (Not offered in 1923-24.)

Open to students who are taking a full course of grade II. One hour a week for a year. A second appointment with the instructor is substituted for preparation. MISS MILLER.

208. ROMAN LIFE AND CUSTOMS. (Not offered in 1923-24.) Lectures, illustrated by photographs and lantern slides, on subjects connected with the daily life and surroundings of the Romans, such as family life, dress, education, buildings, roads, travel, social functions, amusements, religious customs, etc. The required reading will be mainly in English.

Open to juniors and seniors without prerequisite, and to sophomores who have completed course 101 or 102. One hour a week for a year. MISS MILLER.

301. COMEDY. PLAUTUS AND TERENCE. This course includes the careful study of two or more plays together with the rapid reading of several others.

Open to students who have completed two full courses. Three hours a week for the first semester. MISS HAWES.

302. SATIRE. HORACE AND JUVENAL. This course includes the reading of selected satires of Horace and Juvenal, with study of other Roman satirists by lectures and special topics. Sight reading in Martial.

Open to students who have completed two full courses. Three hours a week for the second semester. MISS HAWES.

303. LATIN EPIGRAPHY. Selected inscriptions will be studied both for their content as sources of Roman public and private life, and their form. Sandys' Latin Inscriptions and facsimiles will be used.

Open to students who have completed two full courses. Three hours a week for the first semester. MISS WALTON.

304. TOPOGRAPHY OF ROMAN SITES. Architectural History and Topography of Ancient Rome and of typical municipal and provincial towns.

Open to students who have completed two full courses. Three hours a week for the second semester. MISS WALTON.

305. LIVY: HISTORY OF EARLY ROME. (Not offered in 1923-24.) Study of the sources of the early history of the Roman Republic. Lectures and collateral reading.

Open to students who have completed two full courses. Three hours a week for the first semester. MISS FLETCHER.

306. STUDIES IN ROMAN RELIGION. (Not offered in 1923-24.) The early religious institutions of the Romans will be studied from Ovid's *Fasti*, Cicero's *De Natura Deorum*, and other sources.

Open to students who have completed two full courses. Three hours a week for the second semester. MISS FLETCHER.

307. LATIN LITERATURE OF THE EARLY CHRISTIAN PERIOD. Readings from the Early Christian Apologists and Fathers illustrating the contact of Christian ideals with Pagan thought and civilization. Latin Hymns. This course may count as an elective in the Department of Biblical History.

Open to students who have completed two full courses. Three hours a week for the second semester. MISS MILLER.

308. LATIN PROSE COMPOSITION. (Not offered in 1923-24.)

Open at the discretion of the instructor to students who have completed course 206. One hour a week for a year. MISS FLETCHER.

309‡. LITERATURE OF THE ROMAN EMPIRE. (Not offered in 1923-24.) The aim of this course is to secure an acquaintance with many representative authors of the Roman Empire, and to show the interest and the value of the "Silver Latinity" and the writers of the later Imperial Period. The readings, which include both poetry and prose, and vary somewhat from year to year, will include selections from Velleius Paterculus, Seneca, Petronius, Quintilian, Tacitus, Martial, Apuleius, Claudian, Boethius, and other authors. The course includes lectures and discussions on various aspects of society in the time of the Empire. Rapid reading without translation is one of the features of this course.

Open to students who have completed three full courses. Three hours a week for a year. MISS HAWES.

310‡. SURVEY OF LATIN POETRY. Part I, Poetry of the Republic. Part II, Poetry of the Empire. In Part I, some study will be given to the beginnings of Latin poetry and the earlier poets, but the main emphasis will be placed upon the poets of the Ciceronian Age, Catullus and Lucretius. In Part II, the aim will be to secure an acquaintance with representative poets of different periods, and to show the interest and the value of the later Latin poetry. Rapid reading without translation is one of the features of this course.

Open to students who have completed three full courses. Three hours a week for a year. MISS HAWES.

‡Courses 309 and 310 are not given in the same year.

321. OUTLINE HISTORY OF LATIN LITERATURE. Lectures and readings, with direction of the students' private reading. The aim of this course is to give a general survey of the subject, tracing the beginnings and development of the various kinds of prose and poetry, and considering the changes in the political and social conditions under which Latin literature developed.

Primarily for graduates. Open to qualified seniors by permission of the department. MISS HAWES.

MATHEMATICS

PROFESSORS : HELEN ABBOT MERRILL, PH.D. (CHAIRMAN.)
ROXANNA HAYWARD VIVIAN, PH.D.

ASSOCIATE PROFESSOR : CLARA ELIZA SMITH, PH.D.

ASSISTANT PROFESSORS : MABEL MINERVA YOUNG, PH.D.
LENNIE PHOEBE COPELAND, PH.D.
MARY CURTIS GRAUSTEIN, PH.D.

INSTRUCTORS : MARION ELIZABETH STARK, M.A.
RUBY WILLIS, B.A.

101. TRIGONOMETRY. Trigonometric equations and transformations, including the use of inverse functions; radian measure; graphs of the trigonometric functions; solution of triangles.

Required of freshmen. Three hours a week for the first semester.

MISS VIVIAN, MISS SMITH, MISS YOUNG, MISS COPELAND,
MRS. GRAUSTEIN, MISS STARK, MISS WILLIS.

102. HIGHER ALGEBRA. In addition to some of the ordinary topics of college algebra, this course includes differentiation and integration of algebraic functions, with applications to concrete problems of maxima and minima and to the determination of simple areas.

Required of freshmen who do not take course 103. Three hours a week for the second semester.

MISS VIVIAN, MISS SMITH, MISS YOUNG, MISS COPELAND,
MRS. GRAUSTEIN, MISS STARK, MISS WILLIS.

103†. THE ELEMENTS OF ANALYTIC GEOMETRY. A brief course, covering the usual topics, and planned to introduce students as early as possible to advanced courses in mathematics. The necessary topics in higher algebra will be treated.

Open to approved freshmen as an alternative to course 102. Three hours a week for the second semester.

MISS SMITH, MISS YOUNG, MISS COPELAND.

201. ANALYTIC GEOMETRY AND CALCULUS. The more elementary parts of Analytic Geometry and Calculus.

Open to students who have completed courses 101 and 102. Three hours a week for a year. MISS SMITH.

†Course 103 will count one hour only toward the B.A. degree for students who offer course 102 also.

202. DIFFERENTIAL AND INTEGRAL CALCULUS. The applications include a course in curve tracing.

Open to students who have completed courses 101 and 103. Three hours a week for a year. MISS MERRILL, MISS SMITH.

203. HISTORY OF ELEMENTARY MATHEMATICS. The evolution of the fundamental concepts of mathematics. Great mathematicians and their chief contributions to elementary mathematics. A brief survey of modern developments in mathematics and its literature. A standard text is used, supplemented by lectures and short reports chiefly based upon rare old books in the mathematical library.

Open to students who have completed or are taking course 201 or 202. Three hours a week for the second semester. MISS COPELAND.

204. INTRODUCTION TO THE THEORY OF STATISTICS. Lectures with supplementary reading on some of the mathematical principles and methods used in statistical work. Each student will present one or more papers based upon data drawn from biology, economics, education, insurance, psychology, vital and population statistics, or other sources.

Open to students who have completed course 101 and either course 102 or 103. One hour a week for a year. MISS VIVIAN.

205. PROBLEM WORK IN STATISTICS. The class will meet two periods a week for problem work and exercises in the collection and arrangement of material, and certain methods will be presented in addition to those in course 204.

Open to students who have completed course 101 and either course 102 or 103. One hour a week for a year. MISS VIVIAN.

NOTE.—Course 204 is primarily for theory and for those students who wish to use critically the statistics of others. Course 205 is primarily for problem work and for those students who wish practice in collecting and arranging statistical material. Students may elect course 204 without course 205, but not course 205 without course 204.

206. DESCRIPTIVE GEOMETRY. The theory and practice of the representation of geometric figures. The use of two or more planes of projection in representing lines, surfaces, and solids. Shades and shadows. One lecture a week with one laboratory period.

Open to students who are taking a three-hour elective course in Mathematics. One hour a week for a year. MISS STARK.

301. CALCULUS AND ITS APPLICATIONS. The applications include a study of curves and space forms, and simple problems in mechanics and differential equations.

Open to students who have completed course 201. Three hours a week for a year. MRS. GRAUSTEIN.

302. HIGHER ANALYSIS. Differentiability and integrability of functions, continuity, convergency of series, representation of functions by power series, theory of integration, infinite integrals, elliptic integrals, Fourier series, and other allied subjects.

Open to students who have completed course 202 or 301. Three hours a week for a year. MISS MERRILL.

303*. DIFFERENTIAL EQUATIONS. An introductory course in ordinary and partial differential equations.

Open to students who have completed course 202 or 301. Three hours a week for the first semester. MISS COPELAND.

304. THEORY OF EQUATIONS, WITH DETERMINANTS. (Not offered in 1923-24.) The work is based on Burnside and Panton's Theory of Equations.

Open to students who have completed course 202 or who have completed or are taking course 301. Three hours a week for the first semester.

305. SOLID ANALYTIC GEOMETRY. (Not offered in 1923-24.) The straight line; the plane; surfaces of the second order. Brief study of surfaces in general.

Open to students who have completed course 202 or who have completed or are taking course 301. Three hours a week for the second semester.

306. MODERN SYNTHETIC GEOMETRY. Metrical and projective properties of plane and sheaf forms of the first and second orders; the anharmonic ratio; harmonic forms; the method of inversion; involution; collineation; the law of duality; theory of poles and polars; reciprocation; space forms and surfaces of the second order. Given by lectures and references, with constant practice in the solution of geometrical problems.

Open to students who have completed course 202 or 301. Three hours a week for a year. MISS YOUNG.

307. HIGHER PLANE CURVES. (Not given in 1923-24.) Systems of co-ordinates; general theory of algebraic curves; singularities; selected curves of different orders; theory of correspondence, transformation of curves. A lecture course, time being allowed for students to present papers to the class dealing with phases of the subject not covered by the lectures.

Open to students who have completed course 202 or 301. Three hours a week for a year. MISS VIVIAN.

*Physics 305, if preceded by Mathematics 303, may be counted toward a major in Mathematics.

308. FUNCTIONS OF A COMPLEX VARIABLE. (Not offered in 1923-24.) Elementary treatment of analytic functions. Infinite series and products, with applications to beta, gamma, and elliptic functions.

Open to students who have completed course 202 or 301. Three hours a week for a year. MISS SMITH.

MUSIC

PROFESSORS : HAMILTON CRAWFORD MACDOUGALL, MUS.D. (CHAIRMAN.)
CLARENCE GRANT HAMILTON, M.A.
ASSISTANT PROFESSOR : HENRY MEYER, MUS.B., B.A.
INSTRUCTORS : EMILY JOSEPHINE HURD.
ALBERT THOMAS FOSTER.
BLANCHE FRANCIS BROCKLEBANK.
CARL WEBSTER.
EDITH BULLARD.
FREDERICK HARRISON JOHNSON, B.A.
ASSISTANT : MIRIAM LOUISE MERRITT, MUS.B.

The Wellesley College Choir of forty members, founded in 1900, furnishes the music for the Sunday services in the Memorial Chapel. Any student with a good natural voice is eligible for membership; trials to fill vacancies are held at the opening of each College year.

The college Symphony Orchestra, consisting of about thirty student and faculty members, was founded in 1906. It offers advantages of competent instruction in ensemble playing under a professional conductor. It gives one or two concerts a year with a program of classical music. Any members of the College who have sufficient technique are admitted to membership.

A limited number of tickets for reserved seats at the concerts of the Boston Symphony Orchestra in Symphony Hall, Boston, are free to students in the department who are able to use them profitably.

I. Musical Theory

The courses in theory and history are open to all students without regard to previous musical knowledge, and count toward the B.A. degree. The history and theory courses are subject to no separate tuition fee. Courses 102, 206, 305, 306, 307, and 308 are designed especially for those students desiring to gain an appreciative knowledge of musical literature.

101. ELEMENTARY HARMONY. This course is designed for freshmen who enter college with the intention of specializing in music. It may be followed by course 201, but not by course 102. This course covers musical notation, the formation of triads and chords of the seventh, the invention of melodies and their harmonization, the simpler kinds of non-

harmonic tones, elementary form, and ear training. Carefully kept notebooks are a part of the work.

Open only to freshmen who are taking practical music. No prerequisites. Two hours a week for a year. MISS MERRITT.

102. INTRODUCTORY HARMONY. This course covers the ground necessary for admission to course 201 or 305, and also offers a substantial foundation for subsequent work in practical or theoretical music. It includes the material of the ordinary elementary harmony course and in addition emphasizes ear training and harmonic analysis. This course is not open to students who have taken course 101.

Open to sophomores, juniors, seniors, and advanced freshmen (five-year music course). No prerequisites. Three hours a week for a year. MR. MEYER.

103. INTERPRETATION. This course is a training in the principles of interpretation, developed through the performance in class of music studied with the private teacher and by listening to and analyzing compositions performed by others. The course concerns itself with the recognition of the simple cadences, harmonic figuration as applied to the accompaniment, the broader rhythmical distinctions, the relations of melody and accompaniment, the school of the composer, biographical data, and the simpler elements of form.

NOTE.—Students wishing to elect the course should apply directly to the head of the department.

Students may elect practical music without electing the course in interpretation; but no one may elect the course in interpretation without at the same time electing practical music.

Open to sophomores, juniors, and seniors who are at the same time taking lessons in practical music in the department and who have acquired a satisfactory degree of skill. One hour a week for a year.

MR. JOHNSON.

201. ADVANCED HARMONY. This course covers *in extenso* the various classes of non-harmonic tones, chords of the ninth modulation, elementary orchestration, writing for the piano, organ, and for voices. The course aims to give facility in elementary composition.

Open to students who have completed course 101 or 102 or the equivalent. Three hours a week for a year. MR. MACDOUGALL.

202. APPLIED HARMONY. (Not offered in 1923-24.) This course aims to realize synthetically at the pianoforte the principles taught in course 201, following what may be termed a laboratory method.

NOTE.—Instruction will be given in small classes of not less than three students. The course is in no sense a substitute for pianoforte lessons. Students must satisfy the head of the department that they

have a pianoforte technique adequate for the work; in general, the ability to play the easier Mendelssohn Songs without Words, and to read hymn tunes accurately at sight will be sufficient.

Open to those students only who are at the same time taking course 201. Two hours a week for a year. MR. HAMILTON.

204. INTERPRETATION. (Not offered in 1923-24.) This course is a continuation of course 103. The subject-matter of the course is the thematic and polyphonic melody, the larger forms, harmony in its æsthetic bearings, the æsthetic effects of the more complicated rhythms, comparative criticism and the various schools of composition. See note to course 103.

Open to students who have completed course 103 and who are at the same time taking lessons in practical music in the department and have acquired a satisfactory degree of skill, also by special permission to seniors. One hour a week for a year.

MR. MACDOUGALL, MR. HAMILTON.

206. HISTORY OF MUSIC. Lectures on the history of music of all nations, with assigned readings and frequent musical illustrations, from which the student is taught to compile analytical programs and critiques. The course is non-technical and no previous knowledge of music is required. It is not open to students who have taken or are taking course 305.

Open to juniors and seniors, and to sophomores who have had one course in the department. Three hours a week for a year.

MR. HAMILTON.

301. COUNTERPOINT. Counterpoint in two, three, and four voices; double counterpoint; analysis; the distinctions between strict (modal) and free counterpoint; the rules for the latter deduced from contemporaneous practice; fugue for two and three voices.

Open to students who have completed course 201. Three hours a week for the first semester. MR. MEYER.

302. MUSICAL FORM. This course aims to cover the various imitative forms, the suite and sonata forms, the large forms of vocal and orchestral music. Students have the opportunity of doing practical work in composition (song form, sonata movements, etc.).

Open to students who have completed course 301. Three hours a week for the second semester. MR. MEYER.

303. APPLIED COUNTERPOINT. (Not offered in 1923-24.) This course aims to realize synthetically at the pianoforte the laws of simple and double counterpoint by the constant playing and analysis of the best examples from the masters. See note to course 202.

Open to those students only who are at the same time taking course 301. Two hours a week for the first semester.

304. **APPLIED FORM.** (Not offered in 1923-24.) This course aims to play and to analyze a great number of specimens of the various forms, with careful analysis and classification. See note to course 202.

Open to those students only who are at the same time taking course 302. Two hours a week for the second semester.

305. **THE DEVELOPMENT OF THE ART OF MUSIC.** A course in the appreciation of music designed to develop musical perception and the ability to listen intelligently to the best music. It includes the evolution of rhythm, harmony, and melody, and their powers and offices in musical expression; the principal musical forms analytically considered; studies of the principal composers, their lives, their strongest works, their relation to the progress of musical art. Some great work will be selected for study during the year. This course is not open to students who have taken or are taking course 206.

Open to students who have completed courses 102 and 201. Three hours a week for a year. MR. MACDOUGALL.

306. **BEETHOVEN AND WAGNER.** (Not offered in 1923-24.) An intensive course devoted to the analyses of selected pianoforte sonatas, chamber music, the symphonies of Beethoven, "Fidelio," and the operas of Wagner. The aim of the course will be to give an intimate knowledge of the two composers' works and to estimate their place in musical history.

Open to students who have completed course 201 or its equivalent. Three hours a week for a year. MR. MACDOUGALL.

307. **SCHUBERT AND SCHUMANN.** An illustrated lecture course, intensive in character, devoted to the study of the principal works of the composers named. The romantic movement in music, the development of the German Song, the poetical and lyric piano piece and the birth of musical criticism are among the principal topics treated. The work of the class will be based mainly upon assigned readings and critical papers.

Open to students who have completed course 201 or its equivalent. Three hours a week for the first semester. MR. HAMILTON.

308. **MENDELSSOHN AND CHOPIN.** An illustrated lecture course, intensive in character, devoted to the study of the principal works of the composers named. The beginnings of modernism, the culmination of sacred music in the oratorio, the age of the virtuoso, the development of instruments and individual and emotional treatment in music are the principal topics studied. The work of the class will be based mainly upon assigned readings and critical papers.

Open to students who have completed course 201 or its equivalent. Three hours a week for the second semester. MR. HAMILTON.

310. FREE COMPOSITION. (Not offered in 1923-24.)

Open by permission to students who have completed courses 301 and 302. Three hours a week for a year.

311. APPLIED HISTORY. (Not offered in 1923-24.) This course aims to realize synthetically at the pianoforte the development of music from the organum of Hucbald to the Wagner opera. Specimens of the music of various schools and periods will be collected, played, and analyzed. See note to course 202.

Open to those students only who are at the same time taking course 305. Two hours a week for a year. MR. MACDOUGALL.

312. CRITICAL STUDIES IN MUSICAL HISTORY. The course attempts to give training in musical investigation. To each student will be assigned some special problem in musical history, musical criticism, musical form, or the like, on which she reports progress from week to week in the seminar.

Open to graduates and to approved seniors who have taken one of the following sequences of courses, or their equivalent: 101, 201; 101, 203; 102, 201; 102, 203. Three hours a week for a year.

MR. MACDOUGALL.

II. Practical Music (Instrumental and Vocal Lessons)

Attention is called to the fact that a student need not necessarily spend five years in college in order to carry on practical music at the same time with the academic course. See (a) following.

It is believed that students having a command of pianoforte or organ technique will be able to profit by the theoretical instruction given in the department to a fuller degree than those without such a technique. To encourage students to acquire a technique, as well as to furnish authoritative instruction, the department undertakes to give lessons in pianoforte, organ, violin, and violoncello playing, and in singing. Practical work is an elective, and students should notify the department of their election of the subject in the usual manner and at the proper time. Attention is called to the fact that students who elect Musical Theory 103 and 204, are thereby obtaining two hours' credit toward the B.A. degree in connection with work done in practical music. It is offered to all students, whether candidates for degrees or not, as stated below:—

(a) *Candidates for the B.A. degree who propose to spend but four years in college may take practical music, provided that they obtain each year the permission of the Dean of the College as well as of the Professor of Music; they must also take a full course in Musical Theory, unless they have completed two two-hour or three-hour courses in the subject.*

(b) Candidates for the B.A. degree *who are willing to devote five years to the college course* will be permitted to take practical music each year of the course, governed by the restriction laid down in (a).

(c) Candidates for the B.A. degree who wish also the *Certificate of the Department of Music* should plan to devote *five years to the college course*. Such students are required to take practical music, two lessons a week, throughout the five years. They must complete, satisfactorily to the department, a course in the literature of the instrument chosen or of the voice; they must apply for the certificate at least three years in advance.

(d) Students not candidates for the B.A. degree *who desire to specialize in music* must meet the requirements prescribed for admission to the freshman class, and must in addition pass an entrance examination in Harmony. Special students must take both Musical Theory and vocal or instrumental lessons, two a week, with not less than twelve hours of weekly practice. They must also take from six to nine hours per week of academic work, including Musical Theory, as may be decided in consultation with the Dean of the College.

(e) Students not candidates for the B.A. degree who wish the *Certificate of the Department of Music* must comply with the conditions laid down in (d); moreover, the academic work taken must include modern languages. Such students must apply for the certificate on entering the department, and must have already acquired the fundamental technique of the instrument chosen or of the voice. The time occupied in study for the certificate depends upon the talent, upon the proficiency of the student at entrance, and upon her subsequent diligence; but in general four years at least are necessary. The various courses are so arranged that the pupil on completion will have an acquaintance with the best musical literature.

(f) Graduates of Wellesley College or of other institutions may make special arrangement for instrumental or vocal lessons.

(g) Permission to practice in Music Hall cannot be given to students not regularly registered in the department.

(h) Students whose progress is not satisfactory may be required to discontinue their lessons.

PROFESSORS : MARY WHITON CALKINS, M.A., LITT D., LL.D.
CHAIRMAN.)

READER IN PHILOSOPHY : GRACE ALLERTON ANDREWS, M.A.
GRADUATE ASSISTANTS : MARGARET CHARLOTTE AMIG, B.A.
ANNA MATHIESEN, B.A.

The requirement in philosophy for a degree is met by course 101 (first semester) followed in the same year by course 102 (second semester).

I. Logic

103. **Logic.** Training in argument and in logical criticism. Work expressly designed to meet the practical needs of the student. The course deals not only with the principles of deductive logic, but also with elementary questions of observation and testimony, and of scientific, statistical, and legal evidence. Text-book: Sellars, *Essentials of Logic*.

Open to sophomores and juniors. Three hours a week for the first semester.
MISS GAMBLE.

II. Psychology

For description of the Psychology Laboratory, see page 142.

101. INTRODUCTORY COURSE IN PSYCHOLOGY. This course aims to secure to students an acquaintance with primary mental facts, to give them a definite notion of the topics treated and of the experimental methods employed in psychology, to provide a psychological basis for the study of philosophy, of sociology, and of education, and to fit them for more advanced psychological work. The course is conducted mainly by lectures, with weekly laboratory or conference appointments. Texts: Gamble, *Outline Studies in Psychology* or Ruckmick, *Brevity Book on Psychology*; Calkins, *A First Book in Psychology*; Titchener, *A Text-book of Psychology*.

Open to sophomores, juniors, and seniors. Three hours a week for the first semester. Lecture Divisions A and B, MISS GAMBLE:

Lecture Divisions A and B, MISS GAMBLE;
Division C, MR. RUCKMICK.

Conferences, MISS GAMBLE, MISS CALKINS,
MR. RUCKMICK, MISS DAY, MISS LANDES, MRS. PRATT.

³Absent on leave.

⁷Appointed for second semester only.

^bAbsent on Sabbatical leave for the second semester.

202. SOCIAL, ABNORMAL AND APPLIED PSYCHOLOGY. This course consists of three parts: Part I, Social Psychology, treating of the facts of the social experience with special reference to social suggestibility, social initiative, and the group consciousness; Part II, Abnormal Psychology, including the topics of dreams, psychotherapy, mental deficiency, mental derangement, and delinquency in its psychological aspects; Part III, Differential and Applied Psychology with special attention to mental tests and to the contributions of psychology to commercial and industrial efficiency. Among the books referred to will be McDougall, *Social Psychology* and *The Group Mind*, Maciver, *Community*, Martin, *The Behavior of Crowds* and Le Bon *The Crowd*; Terman, *Measurement of Intelligence*, Link, *Employment Psychology*, Adams, *Advertising and Its Mental Laws*; Tredgold, *Mental Deficiency*, Rosanoff, *Manual of Psychiatry*, Healy, *The Individual Delinquent*.

Open to juniors and seniors who have completed course 101. Three hours a week for a year.

First semester, MISS GAMBLE, MISS CALKINS.

Second semester, MRS. PRATT, MR. STARCH.

206. PSYCHOLOGICAL BASIS OF MUSIC. Summary of theoretical and experimental literature on the origin of music, harmony, melody, rhythm, consonance; tonal quality; psychology of musical performance and appreciation; individual variations in pitch-discrimination; absolute pitch-memory, synæsthesia; tests of musical aptitude. Text-book: Seashore, *Psychology of Musical Talent*; supplementary references to treatises and periodicals.

Open to students who have completed course 101. Three hours a week for the first semester.

MR. RUCKMICK.

207. GENETIC PSYCHOLOGY. Instinctive responses, formation of habits, development of mental functions in the child from birth to maturity. Text-book, Waddle, *Introduction to Child Psychology*; supplementary references to Kirkpatrick, *The Individual in the Making*, Norsworthy and Whitley, *Psychology of Childhood*, G. S. Hall, *Adolescence*.

Open to students who have completed course 101. Three hours a week for the second semester.

MR. RUCKMICK.

301. EXPERIMENTAL PSYCHOLOGY, LABORATORY COURSE. Every student is expected to perform one or two typical experiments in each of the chief fields of psychological investigation. The accompanying lectures will briefly review the main facts in connection with these experiments and will give some historical background for the facts. This course is designed to train the student in psychological method.

Open to juniors, seniors, and graduate students who have completed course 101. Three hours a week for the first semester. MR. RUCKMICK.

302. EXPERIMENTAL PROBLEMS IN PSYCHOLOGY. This course consists of investigation of special problems by individual students. In 1923-24 the problems will probably be chosen from among the following: auditory sensation, smell classification, affection, association, memorizing, imagery. The methods employed are wider than the problems and are adapted to training students in the fundamental demands of research.

Open to students who have completed course 301. Three hours a week for the second semester. MR. RUCKMICK.

303. SECOND COURSE IN EXPERIMENTAL PROBLEMS IN PSYCHOLOGY. Investigation of special problems. The work on any one of these problems may, at the discretion of the department, be preceded by some weeks of additional training in laboratory technique. In 1923-24, the subjects studied are chance word reaction under distraction, variables in memorizing, direction of attention during lip-reading, affective responses and kinaesthetic responses in rhythmic perception.

Open to students who have completed course 302. Three hours a week for a year. MISS GAMBLE, MR. RUCKMICK.

324. GRADUATE SEMINARY. TYPES OF PSYCHOLOGICAL THEORY. In 1923-24, behaviorism, the main types of introspective psychology, and the "psychology of the unconscious" will be considered in their relation to such earlier doctrines as associationism and spiritualistic psychology.

Open by permission to graduate students. Three hours a week for a semester or for a year. In 1923-24 for the first semester. MISS CALKINS.

203. READING COURSE IN GERMAN OR IN FRENCH PSYCHOLOGICAL TEXTS. (Not given in 1923-24.)

Open to students who are taking elective work in Psychology. One hour a week for a year. MISS GAMBLE.

III. Philosophy

102. INTRODUCTION TO PHILOSOPHY. This course begins with a brief study of ethics, treated from a psychological starting point, as the science of the moral self. The emphasized topics of this study are the nature of goodness and of duty and the relation of virtue to instinct and to habit. The greater part of the course is devoted to the discussion of philosophical problems including those which are raised in the study of psychology: the nature of body, the nature of mind, and the connection between mind and body. The relations of philosophy to physical science and to religion are also considered. The discussion is based upon Descartes, *Meditations*; selections from La Mettrie, and from Haeckel;

Berkeley, *Principles of Human Knowledge* and *Three Dialogues between Hylas and Philonous*.

Open to sophomores, juniors, and seniors who have completed course 101. Three hours a week for the second semester.

Lecture Divisions A and B, MISS CALKINS;
Division C, MR. CUSHMAN.

Conferences, MISS CALKINS, MR. CUSHMAN,
MISS LANDES, MISS DAY.

204. GREEK ETHICAL THEORIES. Primarily text-study. (a) Brief study of pre-Sophistic philosophy. Lectures and outlines; fragments of Herakleitos, Parmenides and Anaxagoras. (b) The rise of ethical inquiry. Lectures and selections from the dialogues of Plato. (c) Plato. The chief ethical dialogues. (d) Aristotle. Extended passages from the *Nicomachean Ethics*; selections from the *Metaphysics* and from *De Anima*. (e) The Stoics and Epicureans. Selections from Epictetus and Marcus Aurelius; lectures and modern commentaries. At all stages emphasis will be laid upon the underlying metaphysics. Discussions throughout.

Open to juniors and seniors who have completed or are taking course 101. Three hours a week for a year. MR. CUSHMAN.

205. SOCIAL ETHICS. (Not offered in 1923-24.)

304. PROBLEMS OF MODERN PHILOSOPHY. This course is conducted through discussions, supplemented by occasional lectures, on problems of philosophy, including the nature of law and of freedom; the relation of self to physical nature; and the issues between realism and idealism, pluralism and absolutism, and between pragmatism and rationalism. The study of these problems involves the critical reading of Hume's *Inquiry Concerning Human Understanding* and parts of the *Treatise*; of portions of Kant's *Critique of Pure Reason* and *Metaphysic of Ethics*; of Spinoza's *Ethics*; of Fichte's *Vocation of Man*; and of selected chapters from the writings of Pearson, James, Royce, Ward, Bradley, Bergson, Russell, and other contemporary writers.

Open to juniors who are taking course 204, to seniors, and to graduate students. Three hours a week for a year. MISS CALKINS.

305. THE LOGIC OF HEGEL. Text study of extended passages from the *Logic* of Hegel's *Encyclopedia*.

Open to students who have completed course 204 and have completed or are taking course 304, and by special arrangement to graduate students who have completed course 304. Three hours a week for the first semester.

306. PHILOSOPHY OF RELIGION. The primary aim of the course is to treat the problems of the philosophy of religion as illustrative instances

falling under problems of wider scope. The basal feature is the study of criteria of religious beliefs, leading to discussion of the significance of religious experience. Several special problems, selected by the class, are discussed.

Open to students who have completed course 305. Three hours a week for the second semester.

321. GRADUATE SEMINARY. ETHICS. Subject in 1923-24: the ethical doctrine of Kant and its critics.

Open by permission to graduate students. Three hours a week for a semester. MISS CALKINS.

322. GRADUATE SEMINARY. CONSTRUCTIVE TREATMENT OF PROBLEMS IN METAPHYSICS. (Not offered in 1923-24.) Subject in 1920-21: Problems of the Philosophy of Nature.

Open by permission to graduate students. Three hours a week for a semester or for a year. MISS CALKINS.

323. GRADUATE SEMINARY. SPECIAL STUDY OF PHILOSOPHICAL SYSTEMS. (Not given in 1923-24.) Subject in 1921-22: Neo-realistic doctrine.

Open by permission to graduate students. Three hours a week for a semester or for a year. MISS CALKINS.

Graduate Work

The department offers to graduate students direction in independent work both in philosophy and in psychology, and conducts graduate conferences, with individual students, at stated times.

PHYSICS

PROFESSOR : LOUISE SHERWOOD McDOWELL, PH.D. (CHAIRMAN.)
 ASSOCIATE PROFESSORS : GRACE EVANGELINE DAVIS, M.A.
 FRANCES LOWATER, PH.D.
 ASSISTANT PROFESSOR : LUCY WILSON,⁵ PH.D.
 LECTURER : HOWARD EDWARD PULLING., PH.D.,
 PROFESSOR OF BOTANY.
 INSTRUCTOR : HILDA LYDIA BEGEMAN, M.A.
 LABORATORY ASSISTANT : MARY ANNETTE WHEELER, B.A.
 CUSTODIAN : HELEN FAY PORTER, B.A.

101. ELEMENTARY PHYSICS. This course is for beginners and presents briefly the elementary principles of mechanics, sound, heat, electricity, and light, and their simpler applications. The course is conducted by means of experimental lectures and laboratory work.

Open to students who do not offer Physics for admission. Three hours a week for a year. MISS McDOWELL, MISS WILSON,
 MISS BEGEMAN, MISS WHEELER.

⁵Absent on leave for the second semester.

102. GENERAL PHYSICS: MECHANICS, ELECTRICITY, AND LIGHT. This course is intended to give students who already have an elementary knowledge of the phenomena of the physical world a rapid survey of the fundamental principles in mechanics, magnetism and electricity, wave motion and light. It is conducted by means of experimental lectures and laboratory work.

Open to students who have met the admission requirement and who are electing course 103 or 202. Three hours a week for the first semester.

MISS LOWATER, MISS BEGEMAN.

103. GENERAL PHYSICS: SOUND AND HEAT. This course continues the work of course 102. In sound, emphasis is laid on the physical basis of music; in heat, on the applications of the principles in daily life.

Open to students who have completed course 102. Three hours a week for the second semester.

MISS LOWATER.

201. ELECTRICITY. Magnetic and electric fields of force; the study and use of instruments for the measurement of current, potential difference, resistance, and capacity; electromagnetic induction.

Open to students who have completed course 101 or 103, or 202, and by special permission to juniors and seniors who have met the admission requirement. Three hours a week for the first semester.

MISS DAVIS.

202. HEAT. Thermometry, calorimetry, properties of vapors and gases, liquefaction of gases, transmission of heat and its application in the heating and ventilation of buildings, kinetic theory, elementary thermodynamics, heat engines.

Open to sophomores, juniors, and seniors who have completed course 201 and by permission to those who have completed course 101 or 102, or are taking course 101. Three hours a week for the second semester.

MISS DAVIS.

203. METEOROLOGY. (Not given in 1923-24.) Text-book: Milham's *Meteorology* with library references. The study of the phenomena of the weather,—air pressure, temperature, progress of storms, cold waves, winds, clouds, precipitation,—leading to an understanding of the principles of weather prediction.

Open to sophomores, juniors, and seniors who have completed course 101 or who have met the admission requirement. Three hours a week for the second semester.

MISS DAVIS.

204. THE AUTOMOBILE: PRINCIPLES AND CONSTRUCTION. (Not offered in 1923-24.) The internal combustion engine; carburetors; systems of ignition, starting and lighting, and transmission. Lectures with demon-

strations to illustrate the physical principles involved. Individual laboratory study of various automobile mechanisms.

Open by permission to juniors and seniors who have completed course 101, or who have met the admission requirement. One hour a week for a year.
MISS WILSON.

301. LIGHT. The wave theory and its application to the phenomena of dispersion, interference, diffraction, polarization, propagation in crystalline media; theory and use of optical instruments; modern methods of illumination.

Open to students who have completed course 201. Three hours a week for the first semester.
MISS LOWATER.

302. ELECTROMAGNETIC WAVES AND RADIO TELEGRAPHY. (Not offered in 1923-24.) Alternating currents; electric oscillations; electromagnetic waves and their application to radio telegraphy and telephony.

Open to juniors and seniors who have completed course 201. Three hours a week for the second semester.
MISS McDOWELL.

303. ELECTRONIC PHYSICS. Electrolytic dissociation; conduction through gases; cathode rays; X-rays; radio-activity; electrons and protons; structure of the atom.

Open to juniors and seniors who have completed course 201. Three hours a week for the second semester.
MISS McDOWELL.

304. THEORETICAL ELECTRICITY AND MAGNETISM. The work is based upon Starling's *Electricity and Magnetism* and free use is made of the calculus.

Open to juniors and seniors who have completed course 201 and also course 202 or 301 in Mathematics. Three hours a week for the first semester.
MISS McDOWELL.

305. MECHANICS. Equations of motion; simple harmonic motion; central orbits; statics of rigid bodies; work, energy; dynamics of a particle; motion of rigid bodies.

Open to students who have completed course 101 or 103 in Physics, course 202 or 301 in Mathematics and either course 304 in Physics or course 303 in Mathematics. When combined with course 303 in Mathematics it may be counted toward a major in Mathematics. Three hours a week for the second semester.
MISS LOWATER.

307. LABORATORY PRACTICE. Laboratory practice arranged to fit the needs of the individual student. Opportunity is given for a series

of experiments upon related topics and for training in laboratory technique such as scientific photography.

Open to juniors and seniors who have taken or are taking a grade III course in the department. One hour a week for a year.

MISS McDOWELL, MISS DAVIS, MISS LOWATER, MISS WILSON.

308. BIO-PHYSICS. The course deals with our present conceptions of those physical processes that are fundamental to organisms. It includes such topics as: properties of solutions (diffusion, osmosis, surface tension, etc.); properties of colloidal systems (swelling, coagulation, alteration of permeability in membranes, etc.); effects of heat, radiant energy. It is conducted by means of lectures, reading, and laboratory work, and is designed not only to acquaint the student with the important generalizations of the subject, but also to enable her to visualize the processes themselves.

Open to juniors and seniors who have completed in college one year of Physics and one year of either Botany or Zoology. Three hours a week for the first semester.

MR. PULLING, MISS DAVIS.

READING AND SPEAKING

ASSISTANT PROFESSORS : ELIZABETH PARKER HUNT, M.A. (CHAIRMAN.)
EDITH MARGARET SMAILL.

INSTRUCTORS : EDITH WINIFRED MOSES, M.A.
RUTH AIKMAN DAMON, M.A.

Six hours in this department in addition to course 104 may be counted within the minimum number of hours required for the B.A. degree.

101. READING AND SPEAKING. It is the purpose of this course to develop the ability to read aloud simply and easily and to speak with clearness and conviction. Various forms of literature studied, and exercises given to free the body and voice; phonetics and enunciation.

Open to all undergraduates. Three hours a week for a year.

MRS. HUNT, MISS SMAILL, MISS MOSES, MRS. DAMON.

102. ENGLISH SPEECH. (Not offered in 1923-24.) This course is designed to teach foreigners the correct pronunciation of English; for students who intend to teach English speech to foreigners at home or abroad; and to help all students who need to overcome serious defects in speech. Attention is given to individual needs and special exercises prescribed.

Open to all undergraduates. Advised for foreign students. Three hours a week for a year.

MRS. HUNT.

103. PUBLIC SPEAKING. This course is designed to develop the ability to speak in public effectively. There will be the presentation and criti-

cism of original speeches, and of speeches selected from famous addresses.

Open to sophomores, juniors, and seniors. Three hours a week for a year. MRS. HUNT.

104. FUNDAMENTALS OF SPEECH. This course is intended to promote right habits in the production of voice for ordinary speaking and to increase precision in articulation, enunciation and pronunciation.

Required of sophomores except those who have completed or are taking course 101 or 103. One hour a week for a year.

MRS. HUNT, MISS SMAILL, MISS MOSES, MRS. DAMON.

201. ADVANCED COURSE IN INTERPRETATIVE READING. The study and presentation of various forms of standard literature. This course is designed primarily to develop the imaginative and creative power of the individual and to arouse an appreciation of the educational value of interpretative expression. Tennyson, Browning, Modern Poetry, and Drama.

Open to students who have completed one course in the department. Three hours a week for a year. MISS SMAILL.

301. INTERPRETATION OF SHAKESPEARE. Intensive study of the text for expression; the giving under student management of all the great scenes in a play. Three plays studied.

Open to students who have completed one course in the department, also to those who have completed or are taking English Literature 305 or 309. Three hours a week for a year. MRS. HUNT.

SPANISH

ASSOCIATE PROFESSOR : ALICE HUNTINGTON BUSHEE,² M.A.

INSTRUCTORS : ADA MAY COE, M.A. (CHAIRMAN.)

CARIDAD RODRÍGUEZ-CASTELLANO, M.A.

CARMEN IBÁÑEZ, B.A.

A reading knowledge of French is required for all grade III work and desirable in all courses. The language of the class room is Spanish.

101[‡]. ELEMENTARY COURSE. Grammar, composition, dictation, conversation, prepared and sight translation. Short lectures are given in Spanish on different literary subjects to train the ear and serve as an introduction to later study.

Open to all undergraduates. Three hours a week for a year.

MISS COE, MISS RODRÍGUEZ-CASTELLANO.

²Absent on Sabbatical leave.

[‡]Spanish 101 may not be counted toward the B.A. degree if taken after the junior year.

102. INTERMEDIATE COURSE. Grammar, composition, themes, lectures, reading of typical modern novels and selections from *Don Quijote*.

Open to students who have completed course 101 or an equivalent.
Three hours a week for a year. MISS IBÁÑEZ.

201. SPANISH LITERATURE IN THE EIGHTEENTH AND NINETEENTH CENTURIES. The aim of this course is to give the student a general idea of Spanish literature after the Golden Age: the French influence, Romanticism, and the noted authors of the latter part of the nineteenth century. This includes the rapid reading of both prose and poetry.

Open to students who have completed course 102. Three hours a week for a year. MISS IBÁÑEZ.

202. MODERN SPANISH AMERICAN LITERATURE. The aim of this course is to show the influences at work in the making of Spanish American Literature with the reaction, especially in poetry, on the literature of Spain. Lectures will be given on the political and social conditions of the leading countries.

Open to students who have completed course 102. Three hours a week for a year. MISS COE.

203. ADVANCED CONVERSATION AND COMPOSITION. Three or four twentieth century plays will form the basis for this course and will give opportunity for oral discussion and written reports on life in contemporary Spain.

Open to students who have completed course 102. One hour a week for a year. MISS IBÁÑEZ.

204. CONTEMPORARY SPANISH LITERATURE. (Not offered in 1923-24.) A survey of the literary movement since 1898 with special emphasis on the novel and drama.

Open to students who have completed course 102. Course 204 cannot be taken without course 203. Two hours a week for a year.

301. DRAMA OF THE GOLDEN AGE. This course will be introduced by a short general outline of the historical and literary influences at work during the period. Characteristic dramas of Lope de Vega, Alarcón, Tirso de Molina, and Calderón will be studied as representative of the nation's thought and ideals at the time.

Open to students who have completed course 201 or 202. Three hours a week for a year. MISS RODRÍGUEZ-CASTELLANO.

302. THE SPANISH NOVEL. (Not offered in 1923-24.) The first semester will be devoted to a general study of the novel before 1650 (especially the *caballeresca*, *picaresca*, and *pastoral*) and its relation to

other countries. During the second semester *Don Quijote* will be studied.

Open to students who have completed course 201 or 202. Three hours a week for a year. MISS BUSHEE.

303. OLD SPANISH LITERATURE FROM 1150 TO 1400. (Not offered in 1923-24.) Study of *El Poema del Cid* and other characteristic works of the period.

Open to graduates and to approved seniors who have had at least one course of grade III. Three hours a week for a year.

ZOOLOGY AND PHYSIOLOGY

PROFESSOR : MARIAN ELIZABETH HUBBARD, B.S. (CHAIRMAN.)
 ASSOCIATE PROFESSORS : JULIA ELEANOR MOODY, PH.D.
 ALICE MIDDLETON BORING,³ PH.D.
 GRACE MEDES, PH.D.
 INSTRUCTORS : MARGARET ALGER HAYDEN, M.A.
 HARRIET CUTLER WATERMAN, M.A.
 GLADYS KATHRYN MCCOSH, M.S.
 JANET AGNES WILLIAMSON, M.A.
 EDITH STEELE BOWEN, M.A.
 AMY LOUISE HUNTER, M.S.
 CURATOR : ALBERT PITTS MORSE.
 LABORATORY ASSISTANTS : MARION FREEMAN LEWIS, B.A.
 PAULINE MARGUERITE PULS, B.A.
 CUSTODIAN : KATHLEEN MILLICENT LEAVITT.

101. THE BIOLOGY OF ANIMALS. This course serves as an introduction to the general principles of Zoology. It aims to furnish a clear conception of what an animal is, and of how animals have arisen through evolution in the past. Special emphasis is placed on the application of biological principles to man. Through the study of a series of animal forms of increasing complexity,—the protozoa, hydra, earthworm, lobster, frog,—the student gains gradually a sense of the place of man in the world of living things, and an understanding of the steps by which he has arisen from his animal ancestors. Throughout the course the aim is to give such a knowledge of the human machine, its construction, its operation, as will supply a foundation for the intelligent running of this machine, and as will lead to an understanding of the biological basis of human society. Based upon and supplementing the data gained in the laboratory at first hand, there runs through the second semester a series of lectures and discussions on the evidences and factors of evolution, on heredity and eugenics. Lectures and laboratory work.

Open to freshmen, sophomores, and juniors. Three hours a week for a year. MISS HUBBARD, MISS HAYDEN, MISS WATERMAN,
 MISS MCCOSH, MISS WILLIAMSON, MISS BOWEN.

³Absent on leave.

Zoology

201. INVERTEBRATE ZOOLOGY. (Not offered in 1923-24.) A study of invertebrate types, except the Arthropoda, with reference to their structure, life-history, habits, and distribution; emphasis is given to the general principles of evolution. Lectures, laboratory, field and museum trips.

Open to students who have completed course 101. Three hours a week for the first semester.

202. INVERTEBRATE ZOOLOGY. (Not offered in 1923-24.) A study of the Arthropoda with special reference to the group of insects; their structure, life-history and habits. Attention will be given to insects of economic importance, such as the silk-worm, the disease carriers, household insects and those injurious to vegetables, fruit and trees. Lectures, laboratory, field and museum trips.

Open to students who have completed course 201, or, by permission of the department, to students who have completed course 101. Three hours a week for the second semester.

203. VERTEBRATE ZOOLOGY. Evidences of evolution from the study of comparative anatomy and the development of the vertebrates, based upon a careful dissection of dogfish, necturus, reptile, and cat. The aim throughout is to trace the evolution of the vertebrate type with particular reference to the history of the human body. Lectures, laboratory and museum work.

Open to juniors and seniors without prerequisites, and to other students who have completed course 101. Three hours a week for a year.

MISS MOODY, MISS WATERMAN.

301. MAMMALIAN ANATOMY. (HYGIENE 301.) Lectures and laboratory work on the gross anatomy of bones and muscles; digestive, respiratory, excretory, reproductive, circulatory and nervous systems. Special emphasis is given to the study of the human skeleton and muscles.

Required of first-year students in the Department of Hygiene and Physical Education; also of juniors who are registered as five-year Hygiene students. If counted as part of a major in Zoology, course 301 should be preceded by course 101. One and one-half hours a week for a year.

MISS MOODY, MISS WATERMAN.

303. HISTOLOGY. A study of animal cells and tissues and of a few typical organs. Emphasis will be placed on technique, or the making of microscopic preparations.

Open to juniors and seniors who have completed or are taking course 203 or 308. Three hours a week for the first semester.

MISS WILLIAMSON.

304. EMBRYOLOGY. A general study of the processes and principles of animal development and the related problems. The illustrative material includes some invertebrates for early stages, and for later stages the chick and the pig. Microscopic preparations of a series of stages of the chick are made by each student.

Open to juniors and seniors who have completed or are taking course 203 or 308. Three hours a week for the second semester.

MISS WILLIAMSON.

305. THEORIES AND PROBLEMS OF ZOOLOGY. A critical study of theories of the origin of life, development, evolution and heredity.

Open to students completing a twelve-hour major, and under special conditions to others with the approval of the department. Three hours a week for the second semester.

MISS MOODY.

306. GENETICS. Problems in variation and heredity, with a study of their cytological basis, and their application to eugenics. Reports on papers from recent journals bearing on these problems.

Open to students completing a twelve-hour major; to five-year Hygiene students completing a major in Zoology, and to others under certain conditions with the approval of the department. Three hours a week for the first semester.

MISS MOODY.

307. RESEARCH. Elementary problems in Histology, Embryology, Invertebrate or Vertebrate Zoology, Physiology. Independent work will be required of the student under the direction of the instructor in the field chosen.

Open with the advice of the department to students who have completed or are completing a nine-hour major in Zoology. One and one-half to three hours a week for a year or three hours a week for a semester. For graduate students or students working for honors, one and one-half to six hours a week for a year, or three to six hours for a semester.

MISS MOODY, MISS MEDES.

321. SEMINAR. Reports and discussion of current investigations in Zoology and Physiology, under the guidance of the staff, and as a part of the departmental Journal Club.

Open to graduate students and to approved seniors. One hour a week for a year.

THE TEACHING STAFF.

Physiology

302. GENERAL PHYSIOLOGY. (SPECIAL COURSE FOR HYGIENE STUDENTS. HYGIENE 302.) In this course are studied the physical phenomena underlying the functions of animal organisms, such as osmosis, surface tension, cell-permeability, etc., and the part played by them in normal

physiological processes. A brief survey of human histology serves as a basis for studying the application of these principles to human physiology.

Required of first-year students in the Department of Hygiene and Physical Education; also of seniors registered as five-year Hygiene students; open to those juniors registered as five-year Hygiene students who plan to elect a second course in Physiology in the Department of Zoology and Physiology. Other students take 308. If counted as part of a major in Zoology, course 302 should be preceded by course 101. Three hours a week for a year.

MISS MEDES, MISS HUNTER.

307. RESEARCH. See Zoology.

308. GENERAL PHYSIOLOGY. This course aims to present the fundamental facts and theories which underlie the normal functions of animal organisms. It studies the action of the various organ systems, such as the muscular and nervous, digestive, respiratory, circulatory, excretory, and reproductive, and includes a brief survey of foods and a consideration of the problems of nutrition and metabolism.

Open to students who have completed course 101, and who have completed or are taking an elementary course in Chemistry; or to students who in addition to fulfilling the Chemistry requirement have completed or are taking Zoology 203. Three hours a week for a year.

MISS MEDES.

309. METABOLISM. (Not offered in 1923-24.) Properties and composition of living matter; nutrition; metabolism; excretion. A preliminary consideration of these processes as general properties of living matter will be followed by a more extended study of their occurrence in the normal human being. The latter part of the work will deal in detail with pregnancy, fetal life and childhood.

Open to students who have completed course 308 or 302 and Chemistry 301. Three hours a week for a year.

MISS MEDES.

311. PHYSIOLOGY OF THE NERVOUS SYSTEM, SPECIAL SENSES, AND GLANDS OF INTERNAL SECRETION. A study of the nervous and chemical control of the organism through the central nervous system, the organs of special sense and the glands of internal secretion. It includes a consideration of theories of irritability, conductivity, etc., and of the physiological basis of mental processes. A brief study of certain types of defectives will be made.

Open to students who have completed course 308 or 302. Three hours a week for a year.

MISS MEDES, MISS HUNTER.


321. SEMINAR. See Zoology.

COLLEGE EXAMINATIONS

An examination period occurs at the end of each semester. At these periods, and also during the days of the admission examinations in September, examinations for the removal of conditions and deficiencies and for advanced standing may be taken.

A student who wishes to take an examination upon a course which is not a part of her approved schedule for the year, must apply to the Dean of the College for the requisite card of admission to the examination. The last day for receiving applications for such cards is *for the September examinations, September first; for the mid-year examinations, January first; for the June examinations, May fifteenth.*

N. B. Examinations for the removal of conditions and deficiencies excepted, no student can be admitted to examination upon a course which is not a part of her approved schedule for the year without permission both from the Head of the Department concerned and the Dean of the College. *No student, therefore, should enter upon preparation for such an examination until her plan has been approved by both of the above named officers.*

 The College reserves the right to require the withdrawal of students whose scholarship is not satisfactory, and of those who for any other reason are regarded as not in accord with the ideals and standards which the College seeks to maintain.

DEGREES

The following degrees are conferred by the Trustees upon recommendation of the Academic Council:—

Bachelor of Arts.

Master of Arts.

Requirements for the B.A. Degree

In 1924, 1925

Every candidate for the B.A. degree must complete before graduation the equivalent of fifty-nine hours. Two grades in work which reaches the passing mark are distinguished: one "*Passed*"; the other, "*Passed with Credit*." In order to be recommended for the degree of Bachelor of Arts a student must have "passed with credit" in not less than six hours in the first semester of the freshman year and in not less than nine hours in each succeeding semester. Deficiency of such work in any semester may be made good in accordance with regulations adopted by the Faculty. First-year French and first-year German may not *both* be counted among the fifty-nine hours. Neither first-year French nor first-year German may be so counted if taken after the sophomore year. Second-year French, second-year German, first-year Italian and first-year

Spanish may not be counted among the fifty-nine hours, if taken after the junior year. Of the fifty-nine hours required for the B.A. degree, a certain number is prescribed, the rest elective.

I. PRESCRIBED. The following subjects are required as specified:—

Biblical History	4½ hours
English Composition	3* “
Mathematics	3 “
Language (unless a third language has been presented for admission)	3 “
Natural Science (if not presented for ad- mission)	3 “
A Second Natural Science	3 “
Philosophy	3 “
Hygiene and Physical Education	2† “
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	24½ hours

Of the required subjects, Mathematics must be taken in the freshman year; Hygiene and Physical Education one and one-half hours in the freshman year, and one-half hour in the sophomore year; Biblical History, three three-hour semester courses in the sophomore and the junior years; English Composition three hours per week in the freshman year.* Of the natural sciences, one must be taken before the junior year; either a language or a science must be taken in the freshman year and both if neither a third language nor a science is offered for admission. Philosophy should ordinarily be taken before the senior year.

II. ELECTIVE. All courses are classified in Grades I, II, III; Grade I including elementary courses and Grade III the most advanced courses. All of the fifty-nine hours not indicated in the above are elective, subject to the approval of the Faculty.

Moreover every candidate for the B.A. degree must show before graduation that she has completed either

(1) nine hours in each of two departments,

or

(2) twelve hours in one department and six hours in a second department.

Of the courses offered to fulfill this requirement, at least one full course of Grade III must be taken in the senior year. The nine-hour group must consist of at least six hours above Grade I, three hours of which must be of Grade III. The twelve-hour group must consist of at least nine hours above Grade I, six hours of which must be of Grade III. The six-hour group must include at least three hours above Grade I.

* If a student fails to pass with credit in the second semester of English Composition 101, she will be required to take an additional semester course in the sophomore year.

† One hour of this requirement is met by a one-hour course in Hygiene and Physical Education in the freshman year; the second hour is met by four periods in practical work, two periods per week in the freshman year and two in the sophomore year.

In 1926 and Thereafter

Every candidate for the B.A. degree must complete before graduation the equivalent of sixty hours. Two grades in work which reaches the passing mark are distinguished: one "*Passed*"; the other, "*Passed with Credit*." In order to be recommended for the degree of Bachelor of Arts a student must have "passed with credit" in not less than six hours in the first semester of the freshman year and in not less than nine hours in each succeeding semester. Deficiency of such work in any semester may be made good in accordance with regulations adopted by the Faculty. First-year French and first-year German may not *both* be counted among the sixty hours. Neither first-year French nor first-year German may be so counted if taken after the sophomore year. Second-year French, second-year German, first-year Italian and first-year Spanish may not be counted among the sixty hours, if taken after the junior year. Of the sixty hours required for the B.A. degree, a certain number is prescribed, the rest elective.

I. PRESCRIBED. The following subjects are required as specified:

Biblical History	4½	hours
English Composition	3*	"
Hygiene and Physical Education	2†	"
Philosophy and Psychology	3	"
Reading and Speaking	1	hour
Mathematics (unless four entrance units are presented to constitute a satis- factory equivalent)	3	hours
A foreign language (unless satisfactory evidence of a knowledge of a third language is presented for admission)	3	"
A biological science (unless two years of satisfactory biological science or sciences are offered for admission)	3‡	"
A physical science (unless two years of satisfactory physical science or sciences are offered for admission)	3‡	"

Of the required subjects, English Composition, Mathematics, one of the sciences and a foreign language, (if a third language is not offered for admission), three hours each must be taken in the freshman year; Hy-

* If a student fails to pass with credit in the second semester of English Composition 101, she will be required to take an additional semester course in the sophomore year.

† One hour of this requirement is met by a one-hour course in Hygiene and Physical Education in the freshman year; the second hour is met by four periods in practical work, two periods per week in the freshman year and two in the sophomore year.

‡ If a student presents for admission one year of satisfactory biological science and one year of satisfactory physical science she will be required to take but one in college and may choose either a biological or a physical science. The biological sciences are Botany, Geology, and Zoology; the physical sciences, Astronomy, Chemistry and Physics.

giene and Physical Education one and one-half hours in the freshman year, and one-half hour in the sophomore year; Biblical History, three three-hour semester courses in the sophomore and the junior years; Reading and Speaking, one hour per week in the sophomore year. Philosophy should preferably be taken in the sophomore year.

II. ELECTIVE. All courses are classified in Grades I, II, III; Grade I including elementary courses and Grade III the most advanced courses. All of the sixty hours not indicated in the above are elective, subject to the approval of the Faculty with the following restrictions:

Every candidate for the B. A. degree must show before graduation that she has completed

(1) Nine hours in each of two departments

or

(2) Twelve hours in one department and six in a second department

or

(3) Twelve hours in one department and six in allied courses.

Of the courses offered to fulfill this requirement, at least one full course of Grade III must be taken in the senior year. The nine-hour group must consist of at least six hours above Grade I, three hours of which must be of Grade III. The twelve-hour group must consist of at least nine hours above Grade I, six hours of which must be of Grade III. The six-hour group must include at least three hours above Grade I.

The programme in the freshman year is as follows:—

Mathematics 101 with 102 or 103	3	hours
English Composition 101	3	"
Hygiene and Physical Education		
120 and 121	1½	"
Electives	9	"
Total		16½ hours

These electives must be chosen in accordance with the prerequisites given in the department statements from the list of courses named below, subject to the following restrictions:—

(1) One elective must be a science and the second a language (if only two foreign languages are offered for admission).

(2) Two beginning courses in modern language may not be elected.

(3) Only one of the following subjects may be elected: Art, Musical Theory, English Literature, Reading and Speaking.

Language	Sciences	Other Subjects
Greek 101, 201, 202	Astronomy 101	Art 101.
Latin 101, 102	Botany 101	English Literature 101.
German 101, 102, 103 and 104	Chemistry 101, 102 and 201	History 103
French 101, 102, 103, 201	Geology 101	Musical Theory 101
Italian 101	Physics 101, 102 and 103	Reading and Speaking 101, 102
Spanish 101, 102	Zoology 101	

If 16½ hours are satisfactorily completed in the freshman year, the normal programme for the remaining years would be as follows:—

Sophomore year	16½	hours
Junior year	15	"
Senior year	12	"

If 16½ hours are not completed in both the freshman and sophomore years, a student may by special permission carry extra hours in the remaining years.

Elective courses must be chosen with great care so that changes will not be necessary. Students are held responsible for observing the requirements for the degree and the proper sequence of courses.

Students, except entering freshmen, are required to choose in May their free and restricted electives for the year following. All requests for changes of elective courses should be sent to the Dean of the College before September 15th. In general, no changes may be made after the beginning of the year.

Honors in Subjects

Students who wish to become candidates for Honors may apply in the spring of their sophomore or junior year to the special committee appointed to consider these applications.

All applications from candidates for Honors in Subjects must be accompanied by recommendations from the instructors concerned.

A student electing to study for Honors in Subjects will choose a Field of Distinction and will work in that field under the special direction of one or more of the instructors concerned who will advise her on the possible development of her Field of Distinction and will guide her in the carrying on of independent work within it.

A candidate for Honors in Subjects must take all the prescribed work. In place of the regular restricted elective she must take at least twenty-one hours in the chosen Field of Distinction. This Field of Distinction includes work in the major department and allied courses, and with the approval of the major department directing the work may include not more than three hours of research independent of scheduled courses thus giving the able student a stimulus to form habits of investigation in a manner to lead to advanced study.

Admission to Honors in Subjects will be confined to candidates whose scholarship, maturity and previous range of acquirement justify exceptional concentration. The work in the Field of Distinction for such a candidate will be subject to the following tests:

1. In general the regular tests of the courses in the Field of Distinction must be taken, including the examinations in these courses through the junior year.
2. A comprehensive examination must be taken in the student's Field of Distinction at the close of the senior year.

Requirements for the M.A. Degree

The work required of a candidate for the M.A. degree is expected to occupy her entire time for a college year and is the equivalent of fifteen hours of college work. It includes, in general, no fewer than two full

courses of Grade III or their equivalent, in addition to a thesis or a report or reports based on some piece or pieces of independent work. The student should choose one major subject and not more than one minor subject, which should be related to the major; or she may, if she prefers, do all the work in one subject. A candidate for the M.A. degree is ordinarily required to have a reading knowledge of French and of German, although another language may sometimes be substituted for one of these languages. One year of graduate work is required of all candidates for the M.A. degree, but more time may be needed for the completion of the work. Graduates of Wellesley College may do all the work in non-residence, under conditions defined in the Graduate Circular. One year *in residence* is required of all other candidates for the degree.

Information regarding thesis, final examinations, etc., will be found in the Graduate Circular which will be sent on application to the College Recorder.

EXPENSES

TUITION

The charge for tuition to all students, whether living in college buildings or not, is \$300 a year. Tuition is payable in advance and *is not subject to return or deduction*.

Students who are permitted to take *seven hours or less* of class room work a week, and *who do not live in college buildings*, pay tuition by the course as follows: for a one-hour course, \$35; a two-hour course, \$70; a three-hour course, \$100. Payment is due at the beginning of the year. No charge is made for tuition in Biblical History.

TUITION AND OTHER CHARGES IN DEPARTMENT OF MUSIC

For instruction for the college year in Pianoforte, Organ, Violin or Voice, two lessons a week	\$150
One lesson a week	75
(Lessons thirty minutes in length)	
For use of the Pianoforte, one period daily for the college year	15
For two and three periods daily, in proportion.	
For use of the Pipe Organ in Music Hall, one period daily, for the college year	20
For two or three periods daily, in proportion.	

Special arrangements may be made for lessons on instruments not mentioned above.

Tuition in music is payable in advance in two equal installments, one at the beginning of each semester, and *is not subject to return or deduction*.

FIXED TIMES AND AMOUNTS OF PAYMENTS

I. *For students who room in college buildings.*

Application fee payable in advance		\$ 10	
September (at the opening of college)			
On account of tuition	\$190		
On account of departmental fee	5		
On account of board and room	250	445	
February (before the beginning of the second semester)			
Balance on tuition	\$100		
Balance on departmental fee	5		
Balance on board and room	250	355	
Total for the year		\$810	

The regular charge for board begins at the opening of dormitories.

II. *For students who do not room in college buildings.*

a. Students who take their meals in college buildings, but room in private houses.


Application fee payable in advance		\$ 10	
September (at the opening of college)			
On account of tuition	\$190		
On account of departmental fee	5		
On account of board	165	360	
February (before the beginning of the second semester)			
Balance on tuition	\$100		
Balance of departmental fee	5		
Balance on board	160	265	
Total for year		\$635	


Such students make payments for rooms directly to the householder at such rates and times as the parties to the arrangement may agree upon. Information regarding boarding places may be obtained by addressing the Dean of Residence.

b. Students who neither board nor room in college buildings pay tuition and departmental fee as follows:—

Application fee payable in advance	\$ 10
September (at the opening of college)	195
February (before the beginning of the second semester)	105
Total for the year	\$310

Such students make payment for room and board directly to the management of the private houses in which they have secured lodging and meals, at such rates and times as the parties to the arrangement may agree upon. Information regarding boarding places may be obtained by addressing the Dean of Residence.

 Payments must be made before the student can take her place in the class room. No exception will be made to this rule without a written permission from the Treasurer.

 Checks or money orders should be made payable to Wellesley College.

FEES

I. Undergraduate.

a. Application Fee.

An application fee of \$10 is required from all candidates for admission, and no application is recorded until the fee is received. The same fee is required from all students in college who are intending to return for the following year, and from all former students who apply for readmission. If the student enters college, the amount of the application fee is deducted from the first tuition bill after entrance. If the application is cancelled *for any reason* the fee is forfeited to the college. A student who postpones entrance until the year following the one for which she first applied may transfer her application fee.

b. Departmental Fee.

Beginning in September, 1923, a fee of ten dollars will be required of *every undergraduate, payable in two equal installments with the payments for board and tuition*. This fee supersedes the science and other small departmental fees hitherto charged, *and is not subject to refund*. Deposits to cover breakage and the use of equipment will still be required in some cases, but these deposits are repaid if there is no loss or damage to the equipment used.


c. Diploma Fee.

At the time of taking the B.A. degree or the certificate in Hygiene and Physical Education, a diploma fee of \$10 is charged.

Every student should also reckon on an expenditure of \$15 to \$30 annually for the purchase of books.


II. Graduate.

A matriculation fee of \$5 is payable when a student is accepted as a candidate for the Master's degree. The amount of this fee will be deducted from the diploma fee of \$25 payable when the degree is received.

 *No student can receive a diploma until a satisfactory settlement of all her college dues has been made.*

RESIDENCE

The residence halls belonging to the College and situated within the limits of the campus are Stone, Norumbega, Freeman, Wood, Fiske, Wilder, Pomeroy, Cazenove, Beebe, Shafer, Tower Court, Clafin, Clafin Annex, The Barn, and The Homestead. Eliot, Washington, Noanett, Crofton and Little Houses, also the property of the College, and six houses leased to the College for dormitory purposes in order to meet temporary needs, are situated outside and immediately adjoining the college grounds. All these houses are under the direction of officers appointed by the College. All the rooms are furnished, and supplied with electric lights.

 *A student vacating a room before the close of the year, or relinquishing a room reserved for her at the beginning of the year, will*

be charged for board, until the vacancy has been filled by an incoming student, at the rate of not less than \$15 a week, any number of days less than one week being charged as one full week, the minimum charge being for one full week. Therefore, notice of intention to withdraw should be given at the earliest possible moment. No deduction is made for absences during the year.

Applications for rooms in college buildings take the date at which the application fee is received. (See pages 18 and 129.)

Until May first, but not after that date, *applications from former students* will take precedence of those of new students in the matter of rooms.

HEALTH

The resident physician, Katharine P. Raymond, B.S., M.D., together with the Director of the Department of Hygiene and Physical Education, the Dean of Residence, and the President and the Dean of the College, *ex officio*, constitute a board of health to which all matters affecting the health of students are referred. Simpson Cottage is maintained as an infirmary under the charge of Dr. Raymond. A neighboring cottage has recently been fitted up as an annex. Three trained nurses are in constant attendance. The privileges of the infirmary when prescribed by the Resident Physician are open to all students without charge for a period not exceeding seven days provided no extra service is required. There will be a charge at the rate of \$2.25 a day for periods exceeding seven days. Charges for extra service will be determined by the amount required. The services of the Resident Physician for consultation and treatment are free to all students.

FELLOWSHIPS AND SCHOLARSHIPS

A. For Graduates

THE ALICE FREEMAN PALMER FELLOWSHIP, yielding an income of about \$1,000, was founded in 1903, by Mrs. David P. Kimball.

The holder of this Fellowship must be a graduate of Wellesley College or some other American College of approved standing, a young woman of good health, not more than twenty-six years of age at the time of her appointment, unmarried throughout the whole of her tenure, and as free as possible from other responsibilities. The same person will not be eligible to the Fellowship for more than two years.

The Fellowship may be used for study abroad, for study at any American college or university, or privately for independent research. Several times during the period of tenure the holder of the Fellowship must furnish evidence that it is used for purposes of serious study and not for general culture; and within three years from entrance on the Fellowship she must present to the faculty a thesis embodying the results of the research carried on during the period of tenure.

Applications for this Fellowship should be received by the President of Wellesley College not later than February first of the academic year preceding that for which the Fellowship is asked. These applications must be accompanied by theses or papers presenting evidence of the most advanced work of the candidates, since the Fellowship is not assigned on the basis of unsupported credentials, however commendatory.

THE HORTON-HALLOWELL FELLOWSHIP is offered by the Alumnae Association of Wellesley College. This fellowship is in honor of Mary E. Horton, Wellesley's first professor of Greek, and Susan M. Hallowell, Wellesley's first professor of Botany, and is available to those holding the B.A. or M.A. degree from Wellesley, for graduate study in candidacy for the M.A. or higher degree.

Application should be made by personal letter from the candidate. This should be accompanied by a certified record of her college work, testimonials from instructors as to ability and achievement in the lines of study proposed, testimonials from qualified judges as to health and character, and specimens of scientific or literary work in the form of publications, papers, notes, outlines, collections, etc.

Applications for this fellowship should be received by the Chairman of the Fellowship Committee, Alumnae Office, Wellesley College, not later than March 1st of the academic year preceding that for which the fellowship is asked. The amount of this fellowship has been fixed for 1923-24 at \$1,000.

THE RUTH INGERSOL GOLDMARK MEMORIAL FUND was established by Mr. C. J. Goldmark in 1917 to aid deserving students doing graduate work at Wellesley College or elsewhere in English Literature or English Composition or the Classics, English Literature being given the preference. The income at present is \$250.

Applications for aid from this fund should be received by the Chairman of the Department of English Literature, not later than April first of the academic year preceding that for which the aid is asked.

THE LORETTO FISH CARNEY MEMORIAL FUND was founded in 1920 by the alumnae and staff of the Boston Normal School of Gymnastics and the Department of Hygiene and Physical Education of Wellesley College, the income to be awarded to a senior in the department at the discretion of the teaching staff of the department and the President of the College. (Accumulating.)

RESEARCH FELLOWSHIP FOR THE STUDY OF ORTHOPEDICS IN RELATION TO HYGIENE AND PHYSICAL EDUCATION, amounting to \$1000.

General requirements to be met by applicants are as follows:—good health, the Bachelor's degree from a college or university of good standing; sound preparation in chemistry, physics, and biology; special preparation in anatomy, kinesiology and physiology; familiarity with the elements of orthopedic theory and practice; and an insight into some one or more of the problems of orthopedics as related to hygiene and physical education.

The work on the problem chosen in consultation with the department must be done in residence at Wellesley College. It will, in general, begin in the September following the acceptance of the applicant and will continue through one calendar year. It will involve kinesiology, applied physiology, and the study of clinical material. For the latter, opportunity will be provided for studying the work of orthopedic surgeons in Boston and other eastern cities. The results of the investigation are to be embodied in a thesis to be submitted to the department and published.

Those wishing to apply for this fellowship should send their credentials to the Director, Department Hygiene and Physical Education, Wellesley College, Wellesley, Mass., not later than March 1st of the academic year preceding that for which the fellowship is asked. The decision reached by the department will be based upon the applicant's record, upon personal correspondence, and when possible, upon personal interviews.

EIGHTEEN GRADUATE SCHOLARSHIPS TO THE VALUE OF \$300 A YEAR, the equivalent of one year's tuition, have been established for the benefit of approved candidates for the M.A. degree in residence at Wellesley. Applications for these scholarships should be addressed to the College Recorder, Wellesley College, Wellesley, Mass.

SCHOLARSHIPS IN SCHOOLS OF CLASSICAL STUDY.—Studentships in the American School of Classical Studies in Athens, and the American Academy in Rome, are open to graduates and graduate students of Wellesley College who have done sufficient work in the classics to meet the admission requirements. The object of these schools is to afford opportunity for the study of classical literature, art, and antiquities, to aid in original research in these subjects, and to conduct the exploration and excavation of classical sites.

The American School of Classical Studies in Athens.—The school year extends from October first to June first. The regulations for admission are as follows: "Bachelors of Arts of co-operating colleges, and all Bachelors of Arts who have studied at one of these colleges as candidates for a higher degree, shall be admitted to membership in the School on presenting to the Committee a certificate from the classical department of the college at which they have last studied, stating that they are competent to pursue an independent course of study at Athens under the advice of the Director." Members of the school are subject to no charge for tuition.* Further information can be had by application to Professor Edwards.

The American Academy in Rome, School of Classical Studies.—The American School of Classical Studies is now one of the consolidated schools of the American Academy in Rome. The school year extends from the first of October to the first of June. A summer session also for teachers of the classics has been arranged. For information in regard to the work

* The income of the Julia Josephine Irvine Fund makes possible the studentships in the American School of Classical Studies in Athens. A few fellowships are awarded on competitive examination.

of the School and the requirements for admission, application may be made to Professor Hawes.

SCHOLARSHIPS IN THE MARINE BIOLOGICAL LABORATORY AT WOODS HOLE.—Wellesley College offers annually two scholarships for study at this laboratory to those applicants who meet successfully the competition held by the authorities at Woods Hole. This laboratory is primarily for research, but in the summer courses of instruction are offered, four in Zoology and one in Botany. The purpose of these courses is to aid in the production and training of investigators, and first consideration is given to persons who, whether graduate or undergraduate, give promise of contributing to the advancement of science. Applicants must have completed a college course in the subject in which they wish to work. The laboratory offers besides these courses of instruction, opportunity for research, either under direction or independent. In addition, there are courses of lectures on special topics and on subjects of general biological interest.

Applicants should state the character of the work to be done, whether botanical or zoological, whether courses of instruction are desired, or investigation, direct or independent. Special application forms for admission to courses may be obtained from the Botany or Zoology Department. All applications should be forwarded to Professor Ferguson or Professor Hubbard in time to reach Wellesley College before April 1st. These applications will be forwarded to Woods Hole to be acted upon May 15th, after which date notification will be sent to the successful candidates.

B. For Undergraduates

The income of these scholarships is applied to the aid of meritorious undergraduate students whose personal means are insufficient for their maintenance in college.

THE WOOD MEMORIAL SCHOLARSHIP of \$5,000, founded in 1878 by Caroline A. Wood, in memory of her husband, Caleb Wood.

THE GROVER SCHOLARSHIP of \$5,000, founded in 1878 by William O. Grover.

THE WESTON SCHOLARSHIP of \$5,000, founded in 1878 by David M. Weston.

THE NORTHFIELD SEMINARY SCHOLARSHIP of \$5,000, founded in 1878.

THE PAULINE A. DURANT SCHOLARSHIP of \$7,315, founded in 1880 by Mr. and Mrs. Henry F. Durant, and raised to its present amount by bequest of Mrs. Durant in 1919.

THE SWEATMAN SCHOLARSHIP of \$5,000, founded in 1880 by V. Clement Sweatman.

THE WALTER BAKER MEMORIAL SCHOLARSHIP, founded in 1880 by Eleanor J. W. Baker; raised to \$7,000 by the will of Mrs. Baker in 1892.

THE ANNIE M. WOOD SCHOLARSHIP, founded in 1880 by Frank Wood, who maintained it by annual payments; capitalized at \$10,000 in 1915 by bequest of Mr. Wood.

TWO FROST SCHOLARSHIPS, founded in 1880 by Rufus S. Frost, as follows:—

One of \$1,000, the income to be given annually to some member of the graduating class designated by the Faculty.

One of \$5,000, the income to be devoted annually to the aid of students.

THE UNION CHURCH SCHOLARSHIP, founded in 1880 by Mr. and Mrs. A. W. Stetson.

THE FLORENCE N. BROWN MEMORIAL SCHOLARSHIP of \$5,000, founded in 1880 by Mr. and Mrs. Samuel N. Brown, Jr.

THE AUGUSTUS R. CLARK MEMORIAL SCHOLARSHIP of \$5,000, founded in 1880 by Mr. and Mrs. A. N. Clark.

FOUR HARRIET FOWLE SMITH SCHOLARSHIPS, founded in 1881 by Henry Fowle Durant, in memory of his mother.

THE DURANT MEMORIAL SCHOLARSHIP of \$5,000, founded in 1883 by the officers and students of Wellesley College, in honor of Henry F. Durant, the income to be appropriated annually to some student selected by the Faculty.

THE JANE TOPLIFF MEMORIAL SCHOLARSHIP of \$6,000, founded in 1883 by Mrs. William S. Houghton, in memory of her mother.

THE INCOME OF A FUND of \$25,000, known as the Stone Educational (Scholarship) Fund, founded in 1884 by Valeria G. Stone.

THE JENNIE L. WHITE SCHOLARSHIP of \$5,000, founded in 1886 by herself.

THE MR. AND MRS. SOLOMON F. SMITH MEMORIAL SCHOLARSHIP of \$200 annually, founded in 1888 by George Smith, for the tuition of students from the town of Wellesley.

THE MARGARET MCCLUNG COWAN FUND of \$1,000, founded in 1888 by Rev. and Mrs. P. D. Cowan, in memory of their daughter.

THE EMMELAR SCHOLARSHIP of \$5,000, founded in 1889 by the class of 1891, the income to be appropriated annually to some student selected by the Faculty.

THE SARAH J. HOUGHTON SCHOLARSHIP of \$6,000, founded in 1889 by William S. Houghton, in memory of his wife.

THE EDITH BAKER MEMORIAL SCHOLARSHIP of \$7,000, founded by bequest of Eleanor J. W. Baker in 1892.

THE JOSEPH N. FISKE MEMORIAL SCHOLARSHIP of \$8,000, founded in 1892 by Mrs. Fiske.

THE ABBIE A. COBURN MEMORIAL SCHOLARSHIP of \$2,000, founded in 1892.

- THE ELIZA C. JEWETT SCHOLARSHIP of \$6,000, founded in 1894; the income to be appropriated to the daughter of a clergyman, or of a home or foreign missionary, selected by the Faculty of the College.
- THE ADA L. HOWARD SCHOLARSHIP of \$6,000, founded in 1895.
- THE HELEN DAY GOULD SCHOLARSHIP, founded in 1896 by Helen Miller Gould (Shepard), in memory of her mother; raised to \$10,000 by the donor in 1901.
- THE GOODWIN SCHOLARSHIP of \$5,000, founded in 1897 by Hannah B. Goodwin.
- THE HYDE SCHOLARSHIP of \$2,000, founded in 1898 by Sarah B. Hyde.
- THE BILL SCHOLARSHIP of \$7,000, founded in 1898 by Charles Bill.
- THE HOLBROOK SCHOLARSHIP of \$3,000, founded in 1898 by Sarah J. Holbrook.
- THE (SECOND) HELEN DAY GOULD SCHOLARSHIP, founded in 1899 by Helen Miller Gould (Shepard); raised to \$10,000 by the donor in 1901.
- THE MARY ELIZABETH GERE SCHOLARSHIP of \$5,000, founded in 1899 by Mary Elizabeth Gere.
- THE ANN MORTON TOWLE MEMORIAL SCHOLARSHIP FUND of \$5,000, established in 1901 by bequest of George Francis Towle.
- THE DANA SCHOLARSHIP of \$5,000, founded in 1901 through the gift of Charles B. Dana.
- THE (THIRD) HELEN DAY GOULD SCHOLARSHIP of \$10,000, founded in 1901 by Helen Miller Gould (Shepard).
- THE GEORGE WILLIAM TOWLE MEMORIAL SCHOLARSHIP FUND of \$6,750, founded in 1901 by bequest of George Francis Towle.
- THE ANNA PALEN SCHOLARSHIP of \$10,000, founded in 1902.
- THE ROLLINS SCHOLARSHIP of \$8,000, founded in 1903 by Augusta and Hannah H. Rollins, in memory of their parents.
- THE CLASS OF 1889 MEMORIAL SCHOLARSHIP of \$1,000, founded in 1904 by the class, in memory of classmates who have died.
- THE ELIZABETH S. FISKE SCHOLARSHIP of \$5,000, founded in 1904 by bequest of Miss Fiske.
- THE MAE McELWAIN RICE MEMORIAL SCHOLARSHIP of \$1,000, founded in 1905 by the class of 1902.
- THE SANBORN ALUMNÆ SCHOLARSHIP, founded in 1905 by Helen J. Sanborn of the class of 1884 for the benefit of daughters of alumnae; capitalized at \$10,000 in 1919 by bequest of Miss Sanborn.
- THE JULIA BALL THAYER SCHOLARSHIP of \$2,000, founded in 1907 by bequest of Mrs. Julia Beatrice Ball Thayer of Keene, N. H.

- THE ADAMS SCHOLARSHIP** of \$2,000, founded in 1907 by bequest of Adoniram J. Adams of Boston.
- THE McDONALD-ELLIS FUND** of \$500, established in 1908 by former students of the McDonald-Ellis School of Washington, D. C., in memory of the late principals of the school.
- THE RANSOM SCHOLARSHIP** of \$1,000, founded in 1908 by bequest of Catherine Ayer Ransom.
- THE EMILY P. HIDDEN SCHOLARSHIP** of \$2,000, founded in 1909 by bequest of Mary E. Hidden.
- THE ETHEL HOWLAND FOLGER WILLIAMS MEMORIAL FUND**, established in 1911 from the estate of the late Ethel Howland Folger Williams of the class of 1905, the income to be given to a sophomore at the end of the first semester at the discretion of the head of the German Department.
- THE SOPHIE JEWETT MEMORIAL SCHOLARSHIP** of \$1,000, founded in 1911 by Elsa D. James.
- THE MILDRED KEIM FUND** of \$10,000, founded in 1912 by Newton and Frances S. Keim, in memory of their daughter, Mildred Keim.
- THE CONNECTICUT SCHOLARSHIP** of \$5,000, founded in 1912 by the will of Louise Frisbie.
- THE ANNA S. NEWMAN MEMORIAL SCHOLARSHIP** of \$1,000, established in 1913 through the gift of former students.
- THE MARY G. HILLMAN MATHEMATICAL (Prize) SCHOLARSHIP** of \$1,000, established in 1913 by Elizabeth A. Hillman, in memory of her sister.
- THE CLASS OF 1893 MEMORIAL SCHOLARSHIP** of \$5,000, established by the class in 1913.
- THE M. ELIZABETH GRAY SCHOLARSHIP** of \$10,000, established in 1914 by bequest of William J. Gray.
- THE CORA STICKNEY HARPER SCHOLARSHIP** of \$2,000, established in 1915 by bequest of Mrs. Cora Stickney Harper.
- THE OLIVER N., MARY C., AND MARY SHANNON SCHOLARSHIP FUND** of \$15,000, established in 1916 by bequest of Mary Shannon, as a permanent fund for scholarships.
- THE DR. ALMA EMERSON BEALE SCHOLARSHIP FUND** of \$3,000, founded in 1917 by bequest of Dr. Alma E. Beale of the class of 1891; the income to be applied annually to a student of the College who intends to become either a foreign or a home missionary, or, second, to a student of the College who is the daughter of a clergyman.
- THE STIMSON MATHEMATICAL SCHOLARSHIP** of \$100 annually, founded in 1919 by Candace C. Stimson in memory of her father, Dr. Lewis A. Stimson.

THE MARIE LOUISE TUCK SCHOLARSHIP FUND of \$9,500, founded in 1919 by bequest of Alice C. Tuck.

THE CLASS OF 1884 MEMORIAL SCHOLARSHIP, founded by the Class in 1919 (accumulating).

THE CHARLES B. BOTSFORD SCHOLARSHIP FUND of \$5,000, founded in 1920 by bequest of Lucy A. Botsford.

THE KATHARINE KNAPP SCHOLARSHIP of \$5,000, founded in 1920 by bequest of Miss Knapp.

THE ELIZABETH AND SUSAN CUSHMAN SCHOLARSHIP FUND founded in 1923 by bequest of Susan L. Cushman of the class of 1891 (accumulating).

These scholarships are in general not competitive. They are awarded in recognition of genuine pecuniary need and of satisfactory character, college citizenship, health, and intellectual and practical ability as tested by a year or more of life and study at Wellesley. The foundations are of varying amounts, and the income is apportioned according to need and merit as justly as possible. No scholarship yields the full amount required for both tuition and residence on the ordinary plan. Although there is no special provision for scholarship aid during the freshman year, any school principal or teacher having in view a candidate, thoroughly prepared for college and desirable in every respect, yet unable to enter on account of lack of means after every effort to secure funds has been made, is advised to let the case be known to the Administration of the College, since it is often possible to make some suggestion which proves to be of advantage.

A co-operative house is open to self-helping students but is not of sufficient capacity to provide for freshman applicants as well. A system of student waitresses is also in operation, and freshmen can often avail themselves of the opportunity of self-help thus afforded. A descriptive circular will be mailed on application.

The Christian Association of the College is actively engaged in bringing students into connection with work to be done for compensation within the College and in the neighborhood, but such employment, since it makes a distinct draft upon strength and time, is hardly to be advised for the freshman year.

Another source of pecuniary aid is in the work of the Students' Aid Society established by the founders of Wellesley and revived and incorporated by the alumnae of the College in April, 1916. The Wellesley College Loan Fund, established in 1908 through contributions from alumnae and other friends of the College, is included in the resources of the Students' Aid Society. Small amounts are loaned to students without interest in expectation that these students will repay whenever they are able. Assistance is often given partly in gifts and partly in loans. The existing funds are not sufficient to meet the wants of deserving applicants, and contributions of any amount will be gladly received by the treasurer, Miss Mary Caswell, Wellesley College.

EQUIPMENT

Founders Hall, a building for lecture rooms and department offices pertaining to instruction in the Liberal Arts, was opened for use in September, 1919. The hall was built from the Restoration Fund, secured for the College through trustees, faculty, alumnæ, and other friends, and replaces in some part College Hall, the first and main building of the College, destroyed by fire, March 17, 1914. The building is dedicated as a memorial to the Founders of the College, Henry Fowle Durant and his wife, Pauline Adeline Durant.

Founders Hall is the first achieved member of a group of academic buildings designed by Messrs. Day and Klauder of Philadelphia and to be completed as soon as funds allow.

The Library of the College, endowed by Eben Norton Horsford, now numbers over 100,000 bound volumes, including the departmental libraries. The General Library is open on week days from 8:10 A.M. to 9:30 P.M., and on Sundays from 2:30 to 5:30 P.M. Students have direct access to the shelves. The Library is catalogued by author and subject entries, and the most recent and useful bibliographical aids are provided; special effort is made to train students in methods of research.

The Library subscribes for about three hundred and seventy-five American and foreign periodicals, including daily newspapers representing different sections of the United States besides representative British and Continental dailies.

The Gertrude Memorial Library, established by Mr. A. A. Sweet, and other books in the Biblical History Room furnish 8,333 volumes for the study of the Bible and religious history.

The Library has also many special collections of great interest and value to the student doing graduate or other research work. Among the most valuable of these are the Plimpton Collection established by Mr. George A. Plimpton in memory of his wife, Frances Pearsons Plimpton, of the class of 1884, which comprises 940 volumes of Italian books and manuscripts chiefly of the Renaissance; the Ruskin Collection, the gift of Mr. Charles E. Goodspeed, and the Collections of first and rare editions of Robert and Elizabeth Browning, Tennyson, Byron and other poets, given by Professor George Herbert Palmer.

The Brooks Memorial Room, opened in 1921, provides comfortable and beautiful surroundings with carefully selected books for leisure hours of reading.

The following collections are placed in the buildings of the respective departments:

Art Library	2970 vols.	Astronomy Library	1268 vols.
Botany Library	1111 "	Chemistry Library	899 "
Hygiene Library	3010 "	Music Library	1345 "

Farnsworth Art Building and Art Collections.—The Farnsworth Art Building, the gift of the late Isaac D. Farnsworth, was opened in

September, 1889. Besides lecture rooms, galleries for collections, and studios for drawing and painting, a special feature is the arrangement of laboratories and libraries, so that the books and art material relating to particular subjects and periods can be made immediately available to general students.

The Art Collection consists of a large number of photographs and other material, including the James Jackson Jarves collection of laces and vestments; the M. Day Kimball Memorial, consisting of original pieces of antique sculpture; a few examples of early Italian painting; a collection of Indian baskets, the gift of Mrs. Rufus S. Frost; various Egyptian antiquities obtained through the kindness of the late Mrs. John C. Whitin, including certain interesting papyri; and scarabs and seals from the collection of Dr. Chauncey Murch, the gift of Mrs. Helen M. Gould Shepard; two Renaissance sculptured columns, the gift of Mr. William C. Safford; the Stetson collection of modern paintings, and a few other examples.

The collection of photographs and other reproductions numbers over fifteen thousand.

Music Hall and Billings Hall are large brick buildings, devoted to the department of Music. Music Hall contains offices, studios, and practice rooms equipped with thirty-seven new pianos of standard makes, a victrola and three player-pianos; also a large room, containing a two-manual pipe organ for the use of the organ pupils. Billings Hall, opened in 1904, contains the office of the Professor of Music, the library and class rooms for instruction in Musical Theory; also a concert room, seating four hundred and ten people, and containing the Grover organ,—a large three-manual organ, rebuilt and modernized.

The Music Library includes a collection of manuscripts, about two hundred scores (Symphony, Opera, Oratorio, and Cantata), two hundred songs, three hundred piano arrangements (two, four, and eight hands), besides seven hundred and fifty reference books on musical subjects. The department owns one hundred records for the victrola and three hundred records for the player-pianos.

Laboratories and Scientific Collections

Astronomy.—The Whitin Observatory is a one-story building of white marble, situated on a small hill on the college grounds, and devoted entirely to the use of the department of Astronomy. It contains two rooms surmounted by rotating domes, twenty-five feet and twelve and one-half feet in diameter respectively; two transit rooms; a spectroscopic laboratory; a large, well-lighted room for elementary laboratory work; and another large room in which is kept the department library. In the larger dome room is mounted a twelve-inch Clark equatorial refracting telescope, which is provided with a filar micrometer, a polarizing photo-

meter, and a six-prism spectroscope. The twenty-five foot dome is rotated by an electric motor. The smaller dome contains a six-inch Clark equatorial refractor. There are two transit instruments, the larger a Bamberg prismatic transit of three inches aperture. A four-inch telescope with objective by Browning is mounted in a south wall of the building, with the eye end inside and the optic axis parallel to the axis of the Earth; a plane mirror beneath the object-glass reflects into the latter the light of the object observed. In the spectroscopic laboratory is a Rowland concave grating spectroscope of six feet focal length. The Observatory is supplied with two Howard sidereal clocks, a Bond mean-time chronometer, and two chronographs, any of which may be connected electrically through a switchboard with keys near the various telescopes; a Berger surveyor's transit; an Evershed protuberance spectroscope; a Gaertner comparator for measuring spectrograms; a projecting lantern and about 500 astronomical lantern slides; and a large collection of illustrative apparatus and photographs.

The Observatory House, the residence of the Observatory staff, is near by. Both the Observatory and the house, and also the greater part of the astronomical equipment, are the gift of the late Mrs. John C. Whitin.

Botany.—The department of Botany has well-equipped laboratories and a range of modern greenhouses.

The illustrative collections comprise an herbarium of over thirty thousand phanerogams and twenty-one thousand cryptogams, including the lichen collection of the late Prof. Clara E. Cummings; also a collection of woods, fruits, and economic vegetable products; three hundred charts by Henslow, Kny, Dodel, Tschirch, and others; a collection of Auzoux's botanical models; Brendel's glass models of cryptogams; seventeen hundred water color paintings of North American plants by Helen Frances Ayres; a large collection of lantern slides and microscopic mounts; and about three thousand museum specimens. The department has an "Outdoor Laboratory" for the use of certain courses. The greenhouses contribute to all the courses in the department, but are of especial importance in connection with the work in landscape gardening, in plant physiology, ecology and genetics. The native flora about Wellesley is easily accessible, furnishing a convenient field for both the taxonomist and ecologist. The library is well supplied with reference works and with current periodicals.

Chemistry.—The department of Chemistry occupies a separate building, which contains two lecture rooms and the chemical library, in addition to the rooms fitted up for laboratory work. Separate laboratories are provided for work in general chemistry, organic chemistry, qualitative and quantitative analysis, and food analysis. The building is conveniently arranged and well equipped with necessary apparatus and appliances.

Geology and Geography.—The department of Geology and Geography has a large and well-equipped lecture hall provided with a Leitz epidiascope for lantern slide and opaque projection, a good sized class room, and two laboratories furnished with students' desks, one for the use of geography classes, the other for work in geology.

The Geology Museum contains a typical college collection of dynamical, structural, and historical geology specimens,—a systematic collection of minerals arranged according to Dana, and a systematic collection of rocks. There are three collections arranged for class-room use,—one each in mineralogy, petrology and structural and historical geology. These collections are all the generous gifts of colleges, museums, and friends. The department has two noteworthy collections. The first is the Horace I. Johnson Mineral Collection, which consists of five thousand valuable and beautiful mineral specimens, including many precious metals and stones. This collection is the gift of the late Mr. John Merton, and was presented through the Class of 1915 by the courtesy of Miss M. Helen Merton. The second is the Reverend David F. Pierce Collection, which includes a complete and rare collection of building and ornamental stones and many precious and semi-precious minerals. This collection is the gift of Professor Frederick E. Pierce of Yale, Miss Anna H. Pierce, and Miss Mary E. Pierce of the Class of 1898. The maps of the department include wall maps of different countries and sections of countries; all the United States Geologic Folios, and ten thousand topographic maps of the United States Geologic Survey. Six thousand of these latter maps are arranged in groups to illustrate geographic types. The department has four thousand lantern slides which illustrate all phases of geology and geography.

Hygiene and Physical Education.—The Department of Hygiene and Physical Education occupies Mary Hemenway Hall on the western border of the college grounds. It is designed to meet the requirements of the course for the training of teachers, and to provide practical instruction for the entire College. The equipment includes large, well-lighted gymnasiums with ample bathing facilities, administrative offices, class rooms, and laboratories for anatomy, physiology, bacteriology, hygiene, anthropometry, corrective gymnastics, and research. The department library contains 2,828 volumes, a collection of valuable pamphlets, and regularly receives twenty-one journals dealing with matters related to hygiene. Immediately adjoining Mary Hemenway Hall are tennis and archery courts, basket ball, baseball, volley ball, and hockey fields, with room for further expansion. Lake Waban furnishes facilities for rowing, swimming and skating, and there is also a golf course with a clubhouse. The equipment of the department is designed for the application of modern science to the maintenance and promotion of health and for education through motor activity.

Mathematics.—The unusually large and fine collection of Mathematical Models, destroyed by fire in March, 1914, has at last been replaced by a smaller but very useful set of Brill-Schilling models of surfaces of the second, third and fourth orders, executed chiefly in thread, in celluloid, and in plaster.

Physics.—The department of Physics occupies temporary quarters consisting of two conveniently arranged lecture rooms, fitted with direct and alternating current and gas, and laboratories for general physics, electricity, heat, and light. The equipment is thoroughly modern. The lecture apparatus is sufficient to permit a wide range of experimental lectures. In the elementary laboratory duplication of apparatus permits a close co-ordination between lectures and laboratory exercises. The equipment for advanced laboratory work is especially strong in electrical, optical, and acoustical apparatus. It includes an unusual equipment for experiments in electromagnetic waves and radio communication.

Psychology.—The laboratory consists of nine rooms, eight in the south wing of the Administration Building and one, a dark room, in Founders Hall. The equipment, entirely destroyed by fire in March, 1914, is being replaced as fast as conditions permit or as need arises. It is now quite adequate for demonstration, for general experimental work, and for many lines of research.

Zoology.—The department of Zoology is housed in a temporary building. This building contains laboratories for the elementary course in zoology, for histology and embryology and for physiology. The course in comparative anatomy is conducted in the laboratories in Mary Hemenway Hall. The equipment lost in the fire of March, 1914, is being replaced as rapidly as conditions permit. The fundamental needs of the various courses have been met, and the physiology laboratory in the new wing is fully equipped with modern apparatus. The nucleus of a new museum has been formed, and additions are being made as fast as funds and the lack of adequate fire-proof space allow. A collection of New England birds, and a valuable collection of shells, the gift of Mrs. Rebecca S. Beaman, of Cambridge, are housed in a basement room of the Library.

FORMS OF BEQUEST

I give and bequeath to Wellesley College, a corporation established by law, in the town of Wellesley, county of Norfolk, and Commonwealth of Massachusetts, the sum of———dollars, to be safely invested by it, and called the———Endowment Fund. The interest shall be applied to the payment of the salaries of teachers in Wellesley College, as the Trustees shall deem expedient.

I give and bequeath to Wellesley College, a corporation established by law, in the town of Wellesley, county of Norfolk, and Commonwealth of Massachusetts, the sum of———dollars, to be appropriated by the Trustees for the benefit of the College in such manner as they shall think will be most useful.

I give and bequeath to Wellesley College, a corporation established by law, in the town of Wellesley, county of Norfolk, and Commonwealth of Massachusetts, the sum of———dollars, to be safely invested by it, and called the———Scholarship Fund. The interest of this fund shall be applied to aid deserving students in Wellesley College.

DEGREES CONFERRED IN 1923

MASTER OF ARTS

VIVIAN DUNBAR COLLINS (B.A., Wellesley College, 1921), *Hygiene and Physical Education*.
ELIZABETH HALSEY (Ph.B., University of Chicago, 1911), *Hygiene and Physical Education*.
PAULINE HOLMES (B.A., Wellesley College, 1918), *Education*.
MARY BELTZHOOVER JENKINS (B.A. Wellesley College, 1903), *History*.
JOSEPHINE LANGWORTHY RATHBONE (B.A., Wellesley College, 1921) *Hygiene and Physical Education; Zoology*.
CAROL MARGARET RICE (B.A., Smith College, 1920), *Hygiene and Physical Education; Economics*.
AUDREY MARY SHUEY (B.A., University of Illinois, 1922), *Psychology and Philosophy*.
MARION ELMIRA WARNER (B.S., Connecticut College, 1920), *Chemistry*.
BETTY PAULINE WATT (B.A., Wellesley College, 1922), *Botany*.

BACHELOR OF ARTS

ELIZABETH ABBOTT	ALICE BRADFORD CHAPMAN
ESTELLA SUZANNE ALCAIDE	NORAH JOAN CHATER
ADELINE ALDRICH	EDITH HUNT CHICHESTER
ELIZABETH ALLEN	DOROTHY CLEAVELAND
YOLANDA SHAW ALLEN	NORA CUNNINGHAM CLEVELAND
CHARLOTTE WARFIELD ARNOLD	LORRAINE ANNETTE COMBS
FLORENCE STROUSE BACHARACH	MARY PELTON COOPER
STELLA MARIE BALDERSTON	VIRGINIA CORWIN
ELEANOR BRIANT BALL	MARGERY COUSINS
MARGARET PERRINE BARCALO	WYNONA COYKENDALL
ROSAMUND BARNEY	JANET CRAWFORD
AUDREY AGUSTA BARRON	DOROTHY MURIEL CREWE
MARJORIE BARTHOLOMEW	HANNAH FRANCES CUMMINGS
HELEN FRANCES BAXTER	ADA HAZEL CURRY
DOROTHY ELIZABETH BEECHER	HELEN ALICE DALTON
RUTH MANSON BELCHER	ALICE HAINES DARNELL
ERMA VAUX BELL	HELEN DAVIES
MARY ELIZABETH BENDIG	JEAN PALMER DAWES
ELSA BIRKENSTOCK	MARIAN DAWES
SARAH BISHOP	ALICE MARY DAY
HELENE CLARK BIXBY	EDITH WEMPLE DE NIKE
MIRIAM APTHORP BOND	DOROTHEA ESTHER DICE
OLIVE EMILY BOND-NELSON	DOROTHY LOUISE DODSON
DOROTHY BORG	HELEN LOUISE DUFFILL
GWENDOLEN BOSSI	MARION EMILY DYMOND
ETHEL ADELE BOWMAN	ELIZABETH GITT EHRHART
EDITH ROBERTS BRANDT	LESBIA ELLIS
CATHARINE WHITESIDE BRASH	ESTHER STOCKTON ELY
MARIE ROSE BRENNAN	HELEN ABIGAIL EMERY
LUCILLE CLAIRE BRENNER	BARBARA CLEGHORN EXTON
RUTH JOSEPHINE BROWN	ISABELLE EASTMAN FISK
ELIZABETH ARNETT BRYAN	MARGARET LOVE FISKE
KATHARINE BUCKINGHAM	ELIZABETH FITCH
MARJORIE ELLIOTT BURCHARD	REBECCA FITCH
HELEN PAGE BURNS	MARGHERITA CASSINO FORBES
HELEN KATHERYN BURTT	SARAH ELIZABETH FORD
PERSIS WYMAN BUSHNELL	MARY ADELINE FOWLER
LOUISE BUTTERFIELD	DOROTHEA FOX
SARAH ELIZABETH CALHOUN	MARY DOUGLAS FRASER
CAROLINE GAGE CAMPBELL	BEATRICE FRANCES FREAR
FLORA HOYT CATEN	ESTELLE FREEMAN
HARRIET CAVIS	HELEN WHITMAN FREEMAN
MARY HANNAH CHALKLEY	MARGARET BEAM FREEMAN
HANNAH CHAMBERLIN	CATHARINE MARY FRENCH
DORIS LUELLE CHANDLER	CONSTANCE ELIZABETH FRITZ

DOCLIE GALLAGHER
 ELIZABETH ROBERTA GAY
 MARY ANNA GIBSON
 AGNES KATHERINE GORDON
 JENNETTE ROWE GRUENER
 MARY HACKNEY
 CLARISSA HELEN HÄGLER
 ELIZABETH ACKER HAINES
 MILDRED WILLIAMSON HARPER
 JANE ELIZABETH BLAYNEY HARVEY
 ELIZABETH HUNTER HASTIE
 MARION JOSEPHINE HATHAWAY
 FREDA HAUPTMAN
 DOROTHY WHITING HAWES
 Alys MAY HAWLEY
 ELOISE PERRY HAZARD
 ELIZABETH HEAD
 ALINE EBERHARDT HENRY
 FLORENCE ESTHER HESKETH
 DORIS MILDRED HIGGINS
 ADELINE BRUCE HILL
 MARGUERITE HELEN HIRSCH
 ADELAIDE SUTHERLAND HOLLENBECK
 DOROTHY HOLLOWAY
 RACHEL GORDON HOLLOWAY
 KATHARINE HOLT
 MARGARET ELEANOR HOOGS
 MARY GWENDOLYN HUGHES
 JULIET BERRY IGLEHART
 MARGARET HUNT INGRAHAM
 MARY ELEANOR IVES
 REBECCA HILDEGARDE JACOB
 CAROLYN JAMES
 ELIZABETH FLOWER JAMES
 VIRGINIA JEMISON
 LEE JOHANBOEKE
 ELEANOR JOHNSON
 LUCY BOTSFORD JOHNSON
 MARIAN RACHEL JOHNSON
 DOROTHY LOUISE JOHNSTON
 KATHARINE JONES
 YOSHI KASUYA
 ELEANOR LOUISE KELLY
 RUTH ARLENE KENT
 KATHRYN KIDD
 ELIZABETH KING
 HELEN DORCAS KING
 KATHARINE KNOX KINGSBURY
 EVELYN ESTHER KLUNE
 BARBARA KRIGER
 GLADYS LACK
 CAROLYN TENNEY LADD
 BETTIE CARLISLE LARIMORE
 DOROTHY LEACH
 ALEXANDRA LEITH
 KATHLEEN GILBERT LEWIS
 CARRIE ESTELLE LOHR
 PRISCILLA LOUD
 KATE AYRES LUDLUM
 ELEANOR GRACE LYBRAND
 JULIA BROOKS MCCLURE
 MARGARET CALLENDER McCULLOCH
 JANET MACDOUGALL
 RUTH McJUNKIN
 ESTHER LOUISE McMASTER
 DOROTHY MACOMBER

DOROTHY MARINE
 KATHARINE AMANDA MARSH
 RUTH MARSH
 RUTH BULGIN MARTENIS
 ANNA MATHIESEN
 HILDA MINNIE MAY
 MIRIAM RITTENHOUSE MAYNE
 ESTHER MERRICK
 FLORENCE LANDON MERWIN
 MARGERY METHENY
 HELEN ELVIRA METHFESSEL
 EDITH LUCILE MEYER.
 VICTORIA LE MAY MIAL
 ELIZABETH MILNE
 RUTH TOWNE MOORE
 FRANCES MOSES
 RHODA NICHOLS
 ALLISON NIENABER
 MABEL REBECCA NOYES
 JOAN OGDEN
 HELEN LOUISE OLDREIVE
 MARJORIE CLEMENT OSGOOD
 IRENE OTT
 NATALIE VAN NOTE PACKER
 HOPE PARKER
 CONSTANCE PARSONS
 ESTHER PARSONS
 ANNA ROBERTS PAYNE
 EDNA RUTH PEDERSEN
 FLORENCE LEIGHTON PFALZGRAF
 ISOBEL PIRIE
 VICTORINE DU PONT
 HELEN FAY PORTER
 CATHERINE FRANCES PRESTON
 LOUISE DOBSON PRICE
 ELEANOR PRIEST
 SOPHIE HILDA RABINOWITZ
 MARION RADLEY
 LOUISE RAUH
 HELEN LOUISE RESCH
 EMMA IRENE REYMANN
 CAROL BATES RHODES
 ALICE MARY RICHARDSON
 MARJORIE JOSEPHINE RIVENBURG
 ADELAIDE ROBBINS
 MABEL ANNE ROBBINS
 BARBARA STOW ROBERTS
 ETHEL MARGUERITE ROGERS
 ESTHER CAREW ROLFE
 ELIZABETH HENRY ROLLER
 ELISABETH WEST ROUND
 MARY HELEN RUSSELL
 BLANCHE SCHLIVEK
 ELLEN LOUISE SCHULTZ
 CLARISSA MAE SCOTT
 NADINE ELIZABETH SCOVILL
 DOROTHY EDSON SCRIMGEOUR
 HELEN THEODORA SCUDDER
 MARION GRIFFIN SEELYE
 FRANCES LOUISE SEYDEL
 LAURA DWIGHT SHERRARD
 ISABEL DUNHAM SHINDEL
 MARY SHIRLEY
 GERTRUDE MARY SHULTS
 MARJORIE LUCILE SIBLEY
 LUCILE SINE

KEITH LOUISE SMALL
 DOROTHEA ANNA SMITH
 FRANCES MARY SMITH
 GLADYS NARAMORE SMITH
 JULIA ROBBINS SMITH
 RACHEL LEWIS SMITH
 ALICE CURTIS SNIFFEN
 DOROTHY BURBANK SPINNEY
 DOROTHY LOUISE SPRINGER
 HELEN HAMLIN STAHL
 SARAH ELIZABETH STAMP
 SUZANNE ERWIN STEVENS
 SUSAN ELIZABETH STIMSON
 ELIZABETH LAUGHER STOCKBRIDGE
 REGINA STOLZ
 SUE BAIRD STRYKER
 RUTH KATHERINE SWETLAND
 MATSUYO TAKIZAWA
 ROSA BERTHA TAUB
 ELEANOR MACALLISTER TAYLOR
 ELIZABETH TAYLOR
 NAOMA REBECCA THOMAS
 NANCY COLEMAN THURMAN
 EMMA FRANCES TREADWELL
 WINIFRED VAN HORSSEN
 ELTSE HENDRICKS VAN SAUN
 HELEN CORNELIA VERGASON
 DOROTHY VIRGINIA VOLK

JOSEPHINE WALLACE
 PAULINE HELEN WALLACH
 MARJORIE JEANNETTE WALSH
 MARY LOUISE WARDEN
 FRANCES WARFIELD
 JANET MACDONALD WARFIELD
 IDA MAY WATERMAN
 LOUISE OHEAKALANI WATKINS
 SADIE ELIZABETH WATTON
 IDA MARY WEBBER
 HELEN MARION WHEATLAND
 MARY ANNETTE WHEELER
 MARY ALLEN WHITE
 RUTH LILLIAN WHITE
 EMMA MARY WILDER
 MARGARET WILLARD
 ELIZABETH MELVINA WILLIAMS
 EDNA WILLIS
 CONSTANCE CAMPBELL WILSON
 DOROTHY APPLETON WILSON
 THEODATE POPE WILSON
 HANNAH CARTER WITHERS
 LAURA LAYMAN WITHERS
 EVELYN YATES
 RUTH READY YOUNGER
 MARGARET JOHNSON ZEISER
 EDITH ZIMMERMANN
 HELEN RUTH ZIMMERMANN

CERTIFICATES IN HYGIENE AND PHYSICAL EDUCATION AWARDED IN 1923

MARJORY GIBB FORD,
 B.A., Leland Stanford, Jr., Uni-
 versity
 MARY PAGE,
 B.A., Wellesley College

HELEN POWERS,
 B.A., Wellesley College
 HELEN LORRAINE SMITH,
 B.A., Randolph-Macon Woman's
 College

HONORS IN SUBJECTS

RUTH MARSH

Mathematics in its relations to Electricity

ALICE CURTIS SNIFFEN

Thirteenth Century Gothic Art and History

MARY ANNETTE WHEELER

Mathematics in its relations to Optics and Mechanics

HONOR SCHOLARSHIPS

Honor Scholarships (without stipend) have been established by the College for the purpose of giving recognition to a high degree of excellence in academic work. These honors fall into two classes: students in the first, or higher class, are termed Durant Scholars; students in the second class are termed Wellesley College Scholars.

These honors are awarded to seniors on the basis of two and one-half years' work, to juniors on the basis of one and one-half years' work. The standard in each case is absolute, not competitive.

DURANT SCHOLARS

APPOINTED IN 1923

ELIZABETH ABBOTT, '23	KATHARINE AMANDA MARSH, '23
HULDAH ELIZABETH ACLY, '24	MARGARET WORTHING NELSON, '24
ADELINE ALDRICH, '23	ELIZABETH PASCHAL, '24
ELIZABETH AVERY, '24	ELOISE MARY PECKHAM, '24
MARGARET PERRINE BARCALO, '23	KATHERINE McINTOSH POMEROY, '24
EMILY LOUISE BLANCHARD, '24	PRISCILLA PRESBREY, '24
EDITH ROBERTS BRANDT, '23	HELEN LOUISE RESCH, '23
ANNE DAVENPORT CALDWELL, '24	MARION DOUGLAS RUSSELL, '24
DOROTHY CLEAVELAND, '23	JOY SCHEIDENHELM, '24
MILDRED BROWN CODDING, '24	DOROTHEA SCHEMEDTGEN, '24
ELIZABETH MADELINE COOPER, '24	ALVA BENNETT SCOTT, '24
BETHANN BEALL FARIS, '24	MILDRED FRANCES SHEEHAN, '24
ISABELLE EASTMAN FISK, '23	LILLIAN EDNA STARR, '24
MARGARET BEAM FREEMAN, '23	MATSUYO TAKIZAWA, '23
ELIZABETH HEAD, '23	SARA WOOLLEY THOMPSON, '24
MARY ELIZABETH JACKSON, '24	HELEN ELIZABETH WARE, '24
PHOEBE GERTRUDE JACKSON, '24	NAOMA ELEANORE WARNE, '24
VIRGINIA JEMISON, '23	MARY ELIZABETH WEST, '24
YOSHI KASUYA, '23	MARY ANNETTE WHEELER, '23
CAROLYN TENNEY LADD, '23	MARGARET WILLARD, '23
VIRGINIA MARIE LEUSSLER, '24	HELEN McCREARY WILLYOUNG, '24
CARROLL McCARTY, '24	ELVENE AMELIA WINKLEMAN, '24
MARGARET CALLENDER McCULLOCH, '23	

WELLESLEY COLLEGE SCHOLARS

APPOINTED IN 1923

ESTELLA SUZANNE ALCAIDE, '23	VIRGINIA CORWIN, '23
HARRIET WHITNEY ALLEN, '24	KATHERINE CUNNINGHAM, '24
CHARLOTTE WARFIELD ARNOLD, '23	LALIAH FLORENCE CURRY, '24
BARBARA BAGG, '24	ALICE HAINES DARNELL, '23
STELLA MARIE BALDERSTON, '23	ALICE MARY DAY, '23
HELEN KITFIELD BEATON, '24	ELIZABETH ALICE DEAN, '24
DOROTHY BORG, '23	MARION MAY DILTS, '24
ELEANOR BROWN, '24	DOROTHY LOUISE DODSON, '23
ELIZABETH CHARLOTTE BUETHE, '24	LEONA DURKES, '24
HELEN PAGE BURNS, '23	RUTH EARP, '24
HELEN KATHERYN BURTT, '23	HELEN LAURETTE EASTMAN, '24
CAROLINE GAGE CAMPBELL, '23	MARY ESTELLE ELLINWOOD, '24
HARRIET CAVIS, '23	BARBARA CLEGHORN EXTON, '23
ALICE BRADFORD CHAPMAN, '23	MARGARETA AGATA FAISSLER, '24
NORAH JOAN CHATER, '23	LOIS BUDINGTON FARMER, '24
MARY PELTON COOPER, '23	MARGHERITA CASSINO FORBES, '23

- ELIZABETH FRASER, '24
CATHARINE MARY FRENCH, '23
CONSTANCE ELIZABETH FRITZ, '23
AGNES KATHARINE GORDON, '23
JENNETTE ROWE GRUENER, '23
ANNA PAXSON GULLETTE, '24
JANE ELIZABETH BLAYNEY HARVEY, '23
HELEN FRANCIS HOLMES, '24
MARGARET ELEANOR HOOGS, '23
YSABEL HUTCHINSON, '24
ELEANOR JOHNSON, '23
ELIZABETH SANDS JOHNSON, '24
JEANNETTE JOHNSON, '24
MARIAN RACHEL JOHNSON, '23
LOUISE KEENER, '24
ELEANOR LOUISE KELLY, '23
KATHRYN KIDD, '23
KATHARINE WINTHROP KNAEBEL, '24
BETTIE CARLISLE LARIMORE, '23
KATHLEEN GILBERT LEWIS, '23
ALICE FAY LISTER, '24
ELISABETH MIDDLETON LUCE, '24
CLARA LUKENS, '24
MILDRED GILBERT MARCUS, '24
RUTH MARSH, '23
LILLIAN MARSON MARSHALL, '24
MARIAN CHANDLER MATHEWSON, '24
OLIVE DANA MAYO, '24
HELEN PILLSBURY NOYES, '24
MABEL REBECCA NOYES, '23
IRENE OTT, '23
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ELIZABETH WELLS, '24
MARION GRACE WILLIAMS, '24
EDNA WILLIS, '23
THEODATE POPE WILSON, '23
ADA HELENE YOUNG, '24

SUMMARY OF STUDENTS

Resident candidates for the M.A. degree	40
Resident candidates for the Certificate in Hygiene	35
Candidates for the B.A. degree:—	
Seniors	350
Juniors	369
Sophomores	386
Freshmen	412
Unclassified	27
	—1,544
Non-candidates for degrees	11
	1,630
Duplicates	1
	1,629
Total registration, November, 1923	

United States:—	New York	327
Alabama 6	North Carolina	2
Arkansas 3	North Dakota	1
California 15	Ohio	101
Colorado 16	Oklahoma	2
Connecticut 69	Oregon	9
Delaware 5	Pennsylvania	184
District of Columbia 13	Porto Rico	2
Florida 1	Rhode Island	30
Georgia 8	South Carolina	1
Hawaii 5	Tennessee	16
Idaho 2	Texas	16
Illinois 82	Vermont	12
Indiana 16	Virginia	12
Iowa 13	Washington	8
Kansas 8	West Virginia	8
Kentucky 15	Wisconsin	14
Louisiana 4	Other Countries:—	
Maine 26	Bulgaria	1
Maryland 9	Canada	1
Massachusetts 285	China	12
Michigan 30	England	1
Minnesota 17	France	2
Missouri 23	Greece	1
Montana 2	Ireland	1
Nebraska 12	Japan	6
New Hampshire 22	Mexico	1
New Jersey 150	Turkey	2

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